

ИЗБОРИ АИНС 2021  
Одељење електротехничких наука

Кандидат за иностраног члана  
**Петар Ђурић**

Одлуком Председништва АИНС од 28. септембра 2021. године одређени смо за чланове Комисије за припрему реферата за избор у звање инострани члан АИНС за кандидата Петра Ђурића. На основу увида у документацију која нам је достављена и у складу са Статутом и Правилником АИНС достављамо следећи

## Реферат

### 1. Биографски подаци:

**Др Петар Ђурић** је уважени професор (Distinguished Professor) на државном Универзитету Стони Брук у Њујорку од 2017; декан је факултета за електротехнику и рачунарску технику од 2016; гостујући је професор Универзитета у Београду од 2017; гостујући је професор Универзитета у Болоњи (Италија); гостујући професор Универзитета у Тулузу (Француска); гостујући Фелоу, Корпус Кристи Колеца, Универзитет Кембриџ (Енглеска) од 1997; Фелоу ИЕЕЕ од 2006, ЕУРАСИП-а од 2016.

Рођен је 5. септембра 1957. год. у Струмици, од оца Михајла и мајке Мирјане. Основну школу и гимназију завршио је у Струмици и дипломирао на Електротехничком факултету у Београду 1981, на одсеку телекомуникације. Магистрирао 1986. год. на Електротехничком факултету у Београду, а докторирао 1990. на универзитету Род Ајланд, САД из области обраде сигнала. На државном универзитету Стони Брук, у држави Њујорк, САД, запослен је од 1990. најпре као асистент професор. Напредовао у ванредног професора 1996, у редовног професора 2001, и у уваженог професора 2017. Од 2017, гостујући је професор Универзитета у Београду. Објављује радове са студентима и професорима Електротехничког факултета. Ове године је био ко-председавајући Балканкома у Новом Саду и тренутно организује са колегама из Београда, исто као ко-председавајући, највећу европску конференцију из обраде сигнала (ЕУСИПКО) у Београду (2022).

**2. Научни резултати:** У научноистраживачкој делатности ради у области обраде сигнала са применама у машинском учењу. Примарне делатности укључују: Монте Карло методе; моделирање, детекција и процена сигнала; дистрибуирана обрада сигнала (графови и мреже); Бејзијанско машинско учење; теорија Гаусовских процеса и дубоких Гаусовских процеса; радио-фреквенијска идентификација.

**Пет најзначајнијих научних радова су:**

1. Djurić PM, Kotecha JH, Zhang J, Huang Y, Ghirmai T, Bugallo MF, Miguez J. Particle filtering. *IEEE Signal Processing Magazine*. 20(5):19-38, 2003.
2. Kotecha JH, Djurić PM. Gaussian particle filtering. *IEEE Transactions on Signal Processing*. 51(10): 2592-2601, 2003.
3. Djurić PM, Kay SM. Parameter estimation of chirp signals. *IEEE Transactions on Acoustics, Speech, and Signal Processing*. (12):2118-26, 1990.
4. Djurić PM. A model selection rule for sinusoids in white Gaussian noise. *IEEE Transactions on Signal Processing*. 44(7): 1744-1751, 1996.
5. Dardari D, Closas P, Djurić PM. Indoor tracking: Theory, methods, and technologies. *IEEE Transactions on Vehicular Technology*. 4(4):1263-78, 2015.

**3. Инжењерски резултати:** У инжењерском раду тренутно води велике пројекте повезане са применама машинског учења у медицини и радио-фреквенцијској идентификацији. Аутор је 128 журналских и 321 конференцијских радова. Радови су му цитирани 7093 пута (SCOPUS), а Хиршов индекс (h-фактор) му је 39. Коедитор је књиге “Cooperative and Graph Signal Processing: Principles and Applications,” Elsevier, 2018.

**Пет најважнијих инжењерских резултата су:**

1. Athalye A, Savić V, Bolić M, Djurić PM. Novel semi-passive RFID system for indoor localization. *IEEE Sensors Journal*. 13(2):528-37, 2012.
2. Bolić M, Djurić PM, Hong S. Resampling algorithms and architectures for distributed particle filters. *IEEE Transactions on Signal Processing*. 53(7):2442-50, 2005.
3. Djurić PM, Athalye A, RFID system and method for localizing and tracking a moving object with an RFID tag. *United States patent US 7,812,719*. 2010.
4. Bolić M, Rostamian M, Djurić PM. Proximity detection with RFID: A step toward the internet of things. *IEEE Pervasive Computing*. 14(2):70-6. 14(2):70-6, 2015.
5. Ryoo J, Karimi Y, Athalye A, Stanačević M, Das SR, Djurić P. Barnet: Towards activity recognition using passive backscattering tag-to-tag network. *Proceedings of the 16th Annual International Conference on Mobile Systems, Applications, and Services*. pp. 414-427, 2018

**4. Настава:** Предаје већи број предмета на свим нивоима студија на универзитету Стону Брук. Био је ментор у 36 докторске дисертације (тренутно води још 9 доктораната). Био је учесник комисија за одбрану докторских дисертација у Србији, Немачкој, Француској, Шпанији, Италији, Енглеској, Холандији и Шведској. Ко-креатор је онлајн програма за електротехнику на Стони Бруку (један од два АБЕТ акредитована програма САД) и мастерс програма за инжењеринг вештачке интелигенције. Био је уважени предавач ИЕЕЕ 2008-2009.

**5. Организација научног рада:** Био је на високим функцијама и у бројним одборима ИЕЕЕ Друштва за обраду сигнала као и у организационим одборима многих стручних конференција и радионица. Основао је и био главни уредник ИЕЕЕ Трансакција за Обраду Сигнала и Информација преко Мрежа. Члан је неколико комисија за доделу најпрестижнијих награда ИЕЕЕ-а и ЕУРАСИП-а.

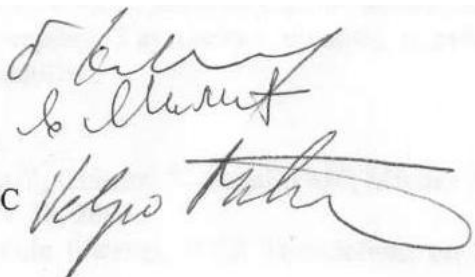
**6. Закључак:** С обзиром на све горе изнете резултате, комисија са задовољством предлаже да Петар Ђурић буде изабран за иностраног члана АИНС. С обзиром да је АИНС радна академија, очекује се да ће др Петар Ђурић, са својим енормним међународним искуством, у великој мери допринети даљој афирмацији и подизању угледа АИНС.

**Комисија:**

Бранко Ковачевић, редован члан АИНС

Љиљана Милић, редован члан АИНС

Вељко Милутиновић, редовни члан АИНС





**Петар Ђурић**, уважени професор на државном Универзитету Стони Брук у Њујорку од 2017; декан факултета за електротехнику и рачунарску технику од 2016; гостујући професор Универзитета у Београду од 2017; гостујући професор Универзитета у Болоњи (Италија); гостујући професор Универзитета у Тулузу (Француска); гостујући Фелоу, Корпус Кристи Колеца, Универзитет у Кембриџу (Енглеска), од 1997; Фелоу ИЕЕЕ-а од 2006. и ЕУРАСИП-а од 2016. ORCID: 0000-0001-7791-3199.

Рођен 5. септембра 1957. год. у Струмици, од оца Михајла и мајке Мирјане. Основну школу и гимназију завршио у Струмици и дипломирао на Електротехничком факултету у Београду 1981, на одсеку телекомуникације. Магистрирао 1986. год. на Електротехничком факултету у Београду, а докторирао 1990. на универзитету Род Ајланд, САД из области обраде сигнала. На државном универзитету Стону Брук, у држави Њујорк, САД, запослен од 1990. најпре као асистент професор. Напредовао у ванредног професора 1996, у редовног професора 2001, и у уваженог професора 2017.

**Наставне активности.** Предаје већи број предмета на свим нивоима студија на универзитету Стону Брук. Био је ментор у 33 докторске дисертације (тренутно води још 10 доктораната). Био је учесник комисија за одбрану докторских дисертација у Србији, Немачкој, Француској, Шпанији, Италији, Енглеској, Холандији и Шведској. Ко-креатор је онлајн програма за електротехнику на Стони Бруку (један од два програма у Америци који су од АБЕТ-а акредитовани) и мастерс програма за инжењеринг вештачке интелигенције. Био је уважени предавач ИЕЕЕ-а 2008-2009. Позвани је предавач на неколико летњих школа у Европи.

**Ужа област научног рада.** Ради у области обраде сигнала са применама у машинском учењу. Примарне делатности укључују Монте Карло методе; моделирање, детекција и процена сигнала; дистрибуирана обрада сигнала (графови и мреже); Бејзијанско машинско учење; теорија Гаусовских процеса и дубоких Гаусовских процеса; радио-фреквентна идентификација.

**Инжењерска делатност.** Тренутно води велике пројекте повезане са применама машинског учења у медицини и радио-фреквенцијској идентификацији. Аутор је 126 журналских и 317 конференцијских радова. Радови су му цитирани 7881 пута (SCOPUS). Коедитор је књиге "Cooperative and Graph Signal Processing: Principles and Applications," Elsevier, 2018. Објавио је 8 поглавља у књигама. Позиван је да држи предавања на многим универзитетима и конференцијама у свету.

**Међународна сарадња.** Редовно сарађује и објављује радове са колегама у Шпанији (Универзитети Карлос III и у Севиљи), Аустрији (Универзитет Технологије у Бечу), Шкотској (Универзитет у Единбургу), Италији (Универзитети у Болоњи и у Перуђи), и Србији (Универзитет у Београду).

**Организационо ангажовање.** Био је на високим функцијама и у бројним одборима ИЕЕЕ Друштва за обраду сигнала као и у организационим одборима многих стручних конференција и радионица. Основао је и био главни уредник ИЕЕЕ Трансакција за Обраду Сигнала и Информација преко Мрежа. Члан је неколико комисија за доделу најпрестижнијих награда ИЕЕЕ-а и ЕУРАСИП-а.

**Сарадња са институцијама или појединцима у Србији.** Од 2017, гостујући је професор Универзитета у Београду. Објављује радове са студентима и професорима Електротехничког факултета. Тренутно организује (а) са колегама из Београда највећу европску конференцију из обраде сигнала (ЕУСИПКО) у Београду (2022) и (б) Балканком у Новом Саду (2021) За обе конференције је главни ко- председавајући. Пар пута је учествовао на симпозијуму Неурел у Београду.

**Награде.** Награда за техничка достигнућа од Европске Асоцијације за Обраду Сигнала (2012); Најбољи рад часописа Магазин за Обраду Сигнала (ИЕЕЕ) (2003) за "Филтрирање честицама;" Велики број награда од Националне Фондације за Науку САД и Националних Института за Здравље САД; декан изврсноности (excellence) факултета Универзитета Карлос III у Мадриду (2009).

**Породица и хоби.** Ожењен Весном Ђурић. Имају сина Владимира. Хоби укључују спорт (тенис, фудбал, кошарка, пливање), читање (класици, аутобиографије, и књиге из области физике и космологије), и учење страних језика.

## Петар М. Ђурић - Научни и Инжењерски Доприноси

### Научних доприноси

1. Гаусовски филтри честицама (“Particle filtering,” Signal Processing Magazine, 2003 – 1149 цитата; “Gaussian particle filtering,” “Gaussian sum particle filtering,” IEEE Transactions on Signal Processing, 2003 - Ова два рада има заједно 1443 цитата). IEEE Signal Processing Magazine и IEEE Transactions on Signal Processing су најпрестижнији часописи у области обраде сигнала са импакт факторима од 11.35 и 5.03, респективно.
2. Методе и алгоритми одмеравања (“Resampling methods for particle filtering: classification, implementation, and strategies,” IEEE Signal Processing Magazine, 2015 – 408 цитата, “Resampling algorithms for particle filters: A computational complexity perspective,” EURASIP Journal on Advances in Signal Processing, 2004 - 289 цитата, импакт фактор 1.73)
3. Процене тренутних учестаности сигнала (“Parameter estimation of chirp signals,” IEEE Transactions on Signal Processing, 1990 – 520 цитата, “Frequency tracking in power networks in the presence of harmonics,” IEEE Transactions on Power Delivery, – 485 цитата, импакт фактор 3.68.)
4. Избор модела сигнала (“A model selection rule for sinusoids in white Gaussian noise,” IEEE Transactions on Signal Processing, 1996 - 172 цитата, “Asymptotic MAP criteria for model selection,” IEEE Transactions on Signal Processing, 1996 - 165 цитата, “Model selection by MCMC computation,” Signal Processing, 1996 - 125 цитата, импакт фактор 4.38)
5. Дистрибуирана обрада сигнала (“Distributed particle filtering in agent networks: A survey, classification, and comparison,” IEEE Signal Processing Magazine, 2012 - 247 цитата, “Likelihood consensus and its application to distributed particle filtering,” IEEE Transactions on Signal Processing, 2012 - 181 цитата)

### Инжењерских доприноси

1. Радио-фреквенсијски систем за радио локализацију (“RFID system and method for localizing and tracking a moving object with an RFID tag,” патент, 75 цитата; Систем је заснован на теговима који могу да прислушкују комуникацију између комерцијалних тегова и читача, “Novel semi-passive RFID system for indoor localization,” IEEE Sensors Journal, 2012, - 105 цитата, импакт фактор 3.08).
2. Дизајн нових тегова за радио-фреквенсијску идентификацију (“Barnet: Towards activity recognition using passive backscattering tag-to-tag network,” Proceedings of the 16th Annual International Conference on Mobile Systems, Applications, and Services, 2018, “Backscatter communications with passive receivers: From fundamentals to applications,” ITU Journal on Future and Evolving Technologies, 2020, нови часопис).
3. Хардверске архитектуре за филтре честица (“Resampling algorithms and architectures for distributed particle filters,” IEEE Transactions on Signal Processing, 2005 - 397 цитата, “Generic hardware architectures for sampling and resampling in particle filters,” EURASIP Journal on Advances in Signal Processing 2005 - 65 цитата).
4. Класификација сигнала срца фетуса (“Apparatus and method for feature extraction and classification of fetal heart rate,” патент, 2014. Предложена класификација је заснована на машинском учењу са циљем да се детектују фетуси који имају недостатак кисеоника приликом порођаја.
5. Proximity detection (“Proximity detection with RFID: A step toward the Internet of Things,” IEEE Pervasive Computing, 2015, 70 цитата, импакт фактор 4.42).

## ПОДСЕТНИК

Име и презиме, датум и место рођења, завршен факултет, место и датум

**Петар М. Ђурић, 5.9.1957, Струмица, Електротехнички факултет, Београд, 1981.**

Тема магистарског рада, ментор, датум и факултет

**Модерне методе за спектралну анализу и њихова примена за процену учестаности синусоида, Проф. Др. Срђан Станковић, Електротехнички факултет, Београд, 1981**

Тема Докторског рада, ментор, датум и факултет

**Избор модела за сигнале и системе предиктивним густинама вероватноће добијених Беџијанским рачуном, Проф. Др. Стивен Кеј, 1990, Универзитет на Род Ајланду, САД**

Запослење: најдуже, садашње; за пензионере и датум пензионисања (институција и врста посла)

**Државни универзитет у Стону Бруку, Њујорк, САД, 1990-данас, уважени професор**

Област научног и инжењерског рада и ORCID идентификатор

**Обрада сигнала, машинско учење, ORCID: 0000-0001-7791-3199**

Редовни професор **2001** Научни саветник \_\_\_\_\_ Дописни члан АИНС од \_\_\_\_\_ године.

### 1. Научно-истраживачки резултати (ПРИЛОЗИ 2 и 3 ПРАВИЛНИКА МИНИСТАРСТВА)

Они који конкуришу за редовне чланове уписују број до избора у дописног + број након избора (пример: 24+6)

M10	МОНОГРАФИЈЕ И МОНОГРАФСKE СТУДИЈЕ	ТИП	M11	M12	M13	M14
		БРОЈ	1		8	

M20	РАДОВИ МЕЂУНАРОДНОГ ЗНАЧАЈА	ТИП	M21a	M21	M22	M23	M24	M28	M29
		БРОЈ	120	6					

M30	МЕЂУНАРОДНИ СКУПОВИ	ТИП	M31	M32	M33	M34	M35	M36
		БРОЈ	21		290			

M40	НАЦИОНАЛНЕ МОНОГРАФИЈЕ	ТИП	M41	M42	M44	M45	M48	M49
		БРОЈ						

M50	ЧАСОПИСИ НАЦИОНАЛНИ	ТИП	M51	M52	M53	M54	M55
		БРОЈ					

M60	НАЦИОНАЛНИ СКУПОВИ	ТИП	M61	M62	M63	M64	M66
		БРОЈ	9				

M80	ТЕХНИЧКА РЕШЕЊА	ТИП	M81	M82	M83	M84	M85	M86	M87
		БРОЈ							

M90	ПАТЕНТИ	ТИП	M91	M92	M93	M94	M95	M96	M97	M98
		БРОЈ	1							

M100	ИЗВЕДЕНА ДЕЛА, НАГРАДЕ, СТУДИЈЕ, ИЗЛОЖБЕ	ТИП	M101	M102	M103	M104	M105	M106	M107	M108
		БРОЈ								
		ТИП	M109	M110	M111	M112				
		БРОЈ								

### 2. Цитираност (одређује се према SCOPUS-у)

2.1 Укупан број цитата **7881**

2.2 Број хетероцитата **5850**

2.3 Број цитираних радова на SCOPUS-у **401**

2.4 Цитираност у књигама \_\_, дисертацијама \_\_ и значајним иностраним публикацијама \_\_

2.5 Хиршов индекс (h-фактор) према броју хетероцитата **39**

**3. Документоване инжењерске реализације (техничко-технолошки пројекти примењени у пракси)**  
(потребе привреде подразумевају и инфраструктурне и јавне објекте)

Р.Б.	Активност	Главни	Извођачки	Технички	Остали
1.	Урађени значајни пројекти за потребе привреде			<b>2</b>	
2.	У потпуности изведени већи пројекти за потребе привреде (број пројеката је део од пројеката под 1.)				
3.	Број ревизија (рецензија) привредних пројеката	<b>32</b>	Број експертских оцена		
4.	Руковођење: Изградњом привредних објеката		Радам привредних објеката		
5.	<b>Остало:</b> (нпр. Извођење других пројеката, и др.)				

**4. Остали показатељи успеха**

1.	Награде међународне	<b>3</b>	4.	Рецензије ISI-SCI-IF радова	<b>&gt;200</b>
2.	Награде домаће		5.	Рецензије међународних пројеката	<b>15</b>
3.	Уређивачки одбори часописа	<b>16</b>	6.	Чланство у научним и стр. удруж.	<b>3</b>

**5. Доприноси развоју услова научно-истраживачког рада**

- 5.1 Формирање: 1 Лабораторија **1** 2 Истраживачке групе **1**  
3 Нови истраживачки правци \_\_ 4 Центара изврности \_\_
- 5.2 Менторство: Др **33**
- 5.3 Педагошки рад: 1 Број уџбеника \_\_ 2 Збирка задатака \_\_  
3 Број курсева: **11** 4 Основне студије **6** 5 Мастер студије **2** 6 Др студије **3**
- 5.4 Међународна сарадња: 1 Руковођење пројектима **6** 2 Учешће на пројектима **5**  
3 Студијски боравак у иностранству дужи од 2 месеца **4**
- 5.5 Одржавање 1 Председник програмског **2** 3 Секретар програмског 5 Члан програмског **>20**  
научних скупова: 2 /организационог одбора **3** 4 /организационог одбора 6 /организационог одбора **>30**

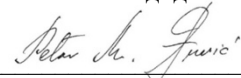
**6. Организација научног рада**

- 6.1 Руковођење: Домаћим пројектима **>25**
- 6.2 Руковођење у Министарству науке: 1 Министар \_\_ 2 Држ.сек. \_\_ 3 Помоћник \_\_ 4 Предс.МНО \_\_
- 6.3 Руковођење у Инжењерској комори: 1 Председник \_\_ 2 Предс.Скупштине \_\_ 3 Предс.Комисије \_\_
- 6.4 Активности у Министарству науке: 1 Матични одбори \_\_ 2 Вођење комисија \_\_
- 6.5 Руковођење научним институцијама: 1 Институту \_\_ 4 Лабораторија \_\_  
2 Факултети **1** 5 Катедре **1**  
3 Одсеци, смерови \_\_
- 6.6 Руков. и актив. у другим друштвима: 1 Научним **2** 2 Стручним

Датум

**13.6.2021. године**

Потпис кандидата



# Petar M. Djurić

## Bibliography

### 1. R&D RESULTS

#### 1.1. Monographs (M11)

1. P. M. Djurić and C. Richard, *Cooperative and Graph Signal Processing: Principles and Applications*, Elsevier, 2018.

#### 1.2. Chapters in M11 (M13)

1. K. Dedecius and P. M. Djurić, “Bayesian approach to collaborative inference in networks of agents,” in *Cooperative and Graph Signal Processing: Principles and Applications*, Eds. P. M. Djurić and C. Richard, Elsevier, 2018.
2. A. H. Sayed, P. M. Djurić, and F. Hlawatsch, “Distributed Kalman and particle filtering,” in *Cooperative and Graph Signal Processing: Principles and Applications*, Eds. P. M. Djurić and C. Richard, Elsevier, 2018.
3. M. F. Bugallo and P. M. Djurić, “Statistical signal processing models for cancer stem cell formation and evolution,” in *Springer Handbook of Bio- and Neuro-Informatics*, N. Kasabov (Ed.), 2014.
4. P. M. Djurić, “Spatial spectrum estimation,” in *Handbook on Array Processing and Sensor Networks*, Eds. S. Haykin and K. J. R. Liu, John Wiley & Sons, Inc.: New York, 2010.
5. P. M. Djurić and M. F. Bugallo, “Particle filtering,” in *Advances in Adaptive Filtering*, Eds. S. Haykin and T. Adali, John Wiley & Sons, Inc.: New York, 2010.
6. P. M. Djurić, “Sequential estimation of signals under model uncertainty,” in *Sequential Monte Carlo Methods in Practice*, Eds. A. Doucet, N. De Freitas, and N. J. Gordon, Springer-Verlag: New York, 2001.
7. Z.I. Mitrovski and P. M. Djurić, “Least squares approximations,” in *Encyclopedia of Electrical and Electronics Engineering*, Ed. J. G. Webster, John Wiley & Sons, Inc., 2000.
8. P. M. Djurić and S. M. Kay, “Spectrum estimation and modeling,” *The Digital Signal Processing Handbook*, Eds. V. Madisetti and D. Williams, CRC/IEEE Press Publication, 1998.

#### 1.3. Papers in international journals of highest reputation (M21)

1. G. Feng, K. Yu, Y. Wang, Y. Yuan, and P. M. Djuric, “Exploiting causality for improved prediction of patient volumes by Gaussian processes,” *IEEE Journal of Biomedical and Health Informatics*, (accepted), 2021.
2. Y. Liu, P. M. Djurić, Y. S. Kim, Z. Rachev, and J. Glimm, “Systemic risks modeling with Lévy copulas,” *Journal of Risk and Financial Management*, (accepted) 2021.
3. N. Vukmirović, M. Erić, and P. M. Djurić, “Performance limits of direct wideband coherent 3D localization in distributed massive MIMO systems,” *Sensors*, vol. 21(10), 3401, 2021.
4. W. Tang and P. M. Djurić, “Bachelor of science in Electrical Engineering Online: A journey of challenges and triumphs,” *IEEE Signal Processing Magazine*, vol. 38(3), pp. 115–121, 2021.
5. F. Tobar, L. Araya-Hernández, P. Huijse, and P. M. Djurić, “Bayesian Reconstruction of Fourier Pairs,” *IEEE Transactions on Signal Processing*, vol. 69, pp. 73–87, 2020.

6. A. Guerra, D. Dardari, and P. M. Djurić, "Dynamic radar network of UAVs: A joint navigation and tracking approach," *IEEE Access*, vol. 8, pp. 116454 - 116469, 2020.
7. A. Guerra, D. Dardari, and P. M. Djurić, "Dynamic radar networks of UAVs," *IEEE Vehicular Technology Magazine*, vol. 15(2), pp. 113–120, 2020.
8. A. Bhattacharya, A. Chakraborty, S. R. Das, H. Gupta, and P. M. Djurić, "Spectrum patrolling with crowdsourced spectrum sensors," *IEEE Transactions on Cognitive Communications and Networking*, vol. 6(1), pp. 271–281, 2020.
9. N. Vukmirović, M. Erić, M. Janjić, and P. M. Djurić, "Direct wideband coherent localization by distributed antenna arrays," *Sensors*, vol. 19(20), 4582; doi:10.3390/s19204582, 2019.
10. V. Elvira, L. Martino, M. F. Bugallo, and P. M. Djurić, "Elucidating the auxiliary particle filter via multiple importance sampling," *Signal Processing Magazine*, vol. 36(6), pp. 145-152, 2019.
11. A. Georgieva, P. Abry, V. Chudáček, P. M. Djurić, M. G. Frascch, R. Kok, C. A. Lear, S. N. Lemmens, I. Nunes, A. T. Papageorghiou, G. J. Quirk, C. W. G Redman, B. Schifrin, J. Spilka, A. Ugwumadu, and R. Vullings, "Computer-based intrapartum fetal monitoring and beyond: A review of the 2nd Workshop on Signal Processing and Monitoring in Labor (Oct 2017, Oxford UK)," *Acta Obstetricia et Gynecologica Scandinavica*, <https://doi.org/10.1111/aogs.13639>, 2019.
12. I. Santos, J. J. Murillo-Fuentes, and P. M. Djurić, "Recursive estimation of dynamic RSS fields based on crowdsourcing and Gaussian processes," *IEEE Transactions on Signal Processing*, vol. 67(5), pp. 1152-1162, 2019.
13. T. Li, F. Hlawatsch, and P. M. Djurić, "Cardinality-consensus-based PHD filtering for distributed multitarget tracking," *IEEE Signal Processing Letters*, vol. 26(1), pp. 49–53, 2019.
14. E. Arias-de-Reyna, P. Closas, D. Dardari, and P. M. Djurić, "Crowd-based learning of spatial fields for the IoT," *Signal Processing Magazine*, vol. 35(5), pp. 130–139, 2018.
15. K. Yu, J. G. Quirk, and P. M. Djurić, "Dynamic classification of fetal heart rates by hierarchical Dirichlet process mixture models," vol. 12(9), e0185417, *PLOS One*, 2017.
16. M. F. Bugallo, V. Elvira, L. Martino, D. Luengo, J. Míguez, and P. M. Djurić, "Adaptive importance sampling: The past, the present, and the future," *Signal Processing Magazine*, vol. 34(4), pp. 60–79, 2017.
17. K. Dedecius and P. M. Djurić, "Sequential estimation and diffusion of information over networks: Linear models," *IEEE Transactions on Signal Processing*, vol. 65(7), pp. 1795–1809, 2017.
18. V. Elvira, J. Míguez, and P. M. Djurić, "Adapting the number of particles in sequential Monte Carlo methods through an online scheme for convergence assessment," *IEEE Transactions on Signal Processing*, vol. 65(7), pp. 1781–1794, 2017.
19. I. Urteaga and P. M. Djurić, "Sequential estimation of hidden ARMA processes by particle filtering - Part I," *Transactions on Signal Processing*, vol. 65(2), pp. 482–493, 2017.
20. I. Urteaga and P. M. Djurić, "Sequential estimation of hidden ARMA processes by particle filtering - Part II," *Transactions on Signal Processing*, vol. 65(2), pp. 494–504, 2017.
21. Z. Shen, A. Athalye, and P. M. Djurić, "Phase cancellation in backscatter-based tag-to-tag communication systems," *Journal of the Internet of Things*, vol. 47, pp. 959 – 970, 2016.
22. Y. Wang and P. M. Djurić, "Distributed Bayesian estimation of linear models with unknown observation covariance," *IEEE Transactions on Signal Processing*, vol. 64(8), pp. 1962–1971, 2016.
23. Y. Wang and P. M. Djurić, "Social learning with heterogeneous agents and sequential decision making," *Digital Signal Processing*, vol. 47, pp. 17–24, 2015.

24. R. Hostettler and P. M. Djurić, "Vehicle tracking based on magnetometer and accelerometer sensor measurements," *IEEE Transactions on Vehicular Technology*, vol. 64(11), pp. 4917–4928, 2015.
25. O. Hlinka, F. Hlawatsch, and P. M. Djurić, "Distributed sequential estimation in asynchronous wireless sensor networks," *IEEE Signal Processing Letters*, vol. 22(11), pp. 1965–1969, 2015.
26. F. Tober, P. M. Djurić, and D. Mandić, "Unsupervised state-space modelling using reproducing kernels," *IEEE Transactions on Signal Processing*, vol. 63(19), pp. 5210–5221, 2015.
27. J. Beaudeau, M. F. Bugallo and P. M. Djurić, "RSSI-based multi-target tracking by cooperative agents using fusion of cross-target information," *IEEE Transactions on Signal Processing*, vol. 63(19), pp. 5033–5044, 2015.
28. Y. Wang and P. M. Djurić, "Social learning in linear networks of Bayesian agents and random decision making," *IEEE Transactions on Signal Processing*, vol. 63(12), pp. 3241–3250, 2015.
29. D. Dardari, P. Closas, and P. M. Djurić, "Indoor tracking: Theory, methods, and technologies," *IEEE Transactions on Vehicular Technology*, vol. 64(4), pp. 1263–1278, 2015.
30. D. Dardari, P. Closas, and P. M. Djurić, Guest Editorial Special Section on "Indoor Localization, Tracking, and Mapping With Heterogeneous Technologies," *IEEE Transactions on Vehicular Technology*, vol. 64(4), pp. 1261–1262, 2015.
31. C. Loo, N. Cardoner, H. Hallock, J. Pujol, C. Pantelis, D. Velakoulis, M. Yucel, P. Sachdev, O. Contreras-Rodriguez, M. Urretavizcaya, J. Menchon, C. Suo, P. M. Djurić, M. Maletić-Savatić, and M. Valenzuela, "Antidepressant effects of ECT may be related to hippocampal neurogenesis," *Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation*, vol. 8(2), pp. 424–425, 2015.
32. M. Bolić, M. Rostamian, and P. M. Djurić, "Proximity detection with RFID: A step toward the Internet of Things," *IEEE Pervasive Computing*, vol. 14(2), pp. 70–76, 2015.
33. T. Li, M. Bolić, P. M. Djurić, "Resampling methods for particle filtering," *Signal Processing Magazine*, vol. 32(3), pp. 70–86, 2015.
34. A. Bravo and P. M. Djurić, "Detectors for cooperative communications with mesh networks of decode-and-forward relays," *IEEE Transactions on Signal Processing*, vol. 63(1), pp. 5–17, 2015.
35. K. Dedecius, J. Reichl, and P. M. Djurić, "Sequential estimation of mixtures in diffusion networks," *IEEE Signal Processing Letters*, vol. 22(2), pp. 197–201, 2015.
36. S. Dash, J. G. Quirk, and P. M. Djurić, "Fetal heart rate classification using generative models," *IEEE Transactions on Biomedical Engineering*, vol. 61(11), pp. 2796–2805, 2014.
37. Z. Weng and P. M. Djurić, "Efficient estimation of linear parameters from correlated node measurements over networks," *IEEE Signal Processing Letters*, vol. 21(11), pp. 1408–1412, 2014.
38. O. Hlinka, F. Hlawatsch, and P. M. Djurić, "Consensus-based distributed particle filtering with distributed proposal adaptation," *IEEE Transactions on Signal Processing*, vol. 62(12), pp. 3029–3041, 2014.
39. Z. Weng and P. M. Djurić, "A search-free DOA estimation algorithm for coprime arrays," *Digital Signal Processing*, vol. 24(2014), pp. 27–33, 2014.
40. L. Geng, M. F. Bugallo, A. Athalye, and P. M. Djurić, "Indoor tracking with RFID systems," *IEEE Journal of Selected Topics in Signal Processing*, vol. 8(1), pp. 96–105, 2014.

41. C. Loo, N. Cardoner, H. Hallock, J. Pujol, C. Pantelis, D. Velakoulis, M. Yucel, P. Sachdev, O. Contreras-Rodriguez, M. Urretavizcaya, J. Menchon, C. Suo, P. M. Djurić, M. Maletić-Savatić, and M. Valenzuela, “How relevant is the 1.28 ppm signal and hippocampal plasticity to clinical outcomes?,” *Biological Psychiatry*, vol. 75(9), pp. 34S–34S, 2014.
42. D. H. Dini, P. M. Djurić, and D. P. Mandić, “The augmented complex particle filter,” *IEEE Transactions on Signal Processing*, vol. 61(17), pp. 4341–4346, 2013.
43. E. Arias-de-Reyna and P. M. Djurić, “Indoor localization with range-based measurements and little prior information,” *IEEE Sensors Journal*, vol. 13(5), pp. 1979–1987, 2013.
44. Y. Wang and P. M. Djurić, “A gossip method for optimal consensus on a binary state from binary actions,” *IEEE Journal of Selected Topics in Signal Processing*, vol. 7(2), pp. 274–283, 2013.
45. A. Athalye, V. Savić, M. Bolić, and P. M. Djurić, “A novel semi-passive RFID system for indoor localization,” *IEEE Sensors Journal*, vol. 13(2), pp. 528–537, 2013.
46. J. Míguez, D. Crisan, and P. M. Djurić, “On the use of sequential Monte Carlo methods for maximum a posteriori sequence estimation and stochastic global optimization,” *Statistics and Computing*, vol. 23(1), 91–107, 2013.
47. O. Hlinka, F. Hlawatsch, and P. M. Djurić, “Distributed particle filtering in agent networks,” *IEEE Signal Processing Magazine*, vol. 30(1), pp. 61–81, 2013.
48. C. S. Maíz, J. Míguez, E. M. Molanes-López, and P. M. Djurić, “A particle filtering scheme for processing time series corrupted by outliers,” *IEEE Transactions on Signal Processing*, vol. 60(9), pp. 4611–4627, 2012.
49. O. Hlinka, O. Slučiak, F. Hlawatsch, P. M. Djurić, and M. Rupp, “Likelihood consensus and its application to distributed particle filtering,” *IEEE Transactions on Signal Processing*, vol. 60(8), pp. 4334–4349, 2012.
50. P. M. Djurić, M. Khan, and D. E. Johnston, “Particle filtering of stochastic volatility modeled with leverage,” *IEEE Journal of Selected Topics in Signal Processing*, vol. 6(4), pp. 327–336, 2012.
51. P. M. Djurić and Y. Wang, “Distributed Bayesian learning in multiagent systems,” *IEEE Signal Processing Magazine*, vol. 29(2), pp. 65–76, 2012.
52. D. E. Johnston and P. M. Djurić, “The science behind risk management: A signal processing perspective,” *IEEE Signal Processing Magazine*, vol. 28(5), pp. 26–36, 2011.
53. L. Ma, Y. Li, P. M. Djurić, and M. Maletić-Savatić, “Systems biology approach to imaging of neural stem cells,” *Methods in Molecular Biology*, vol. 211, pp. 421–434, 2011.
54. P. M. Djurić and J. Míguez, “Assessment of nonlinear dynamic models by Kolmogorov-Smirnov statistics,” *IEEE Transactions on Signal Processing*, vol. 58(10), pp. 5069–5079, 2010.
55. M. Bolić, A. Athalye, S. Hong, and P. M. Djurić, “Study of algorithmic and architectural characteristics of Gaussian particle filters,” *Journal of Signal Processing Systems*, Springer, vol. 61(2), pp. 205–218, 2010.
56. M. Hong, M. F. Bugallo, and P. M. Djurić, “Joint model selection and parameter estimation by population Monte Carlo simulation,” *IEEE Journal of Selected Topics in Signal Processing*, vol. 4(3), pp. 526–539, 2010.
57. M. Vemula, M. F. Bugallo, and P. M. Djurić, “Sensor self-localization with beacon uncertainty,” *Signal Processing*, vol. 89(6), pp. 1144–1154, 2009.
58. P. M. Djurić, M. Vemula, and M. F. Bugallo, “Target tracking by particle filtering in binary sensor networks,” *IEEE Transactions on Signal Processing*, vol. 56(6), pp. 2229–2238, 2008.

59. P. M. Djurić, H. Benveniste, M. E. Wagshul, F. Henn, G. Enikolopov, M. Maletić-Savatić, “Magnetic resonance spectroscopy identifies neural progenitor cells in the live human brain,” *Science*, vol. 321(5889), p. 640, 2008.
60. S. S. Kocer, P. M. Djurić, M. F. Bugallo, S. R. Simon, and M. Matic, “Transcriptional profiling of putative human epithelial stem cells,” *BMC Genomics*, 9: 359, doi:10.1186/1471-2164-9-359, 2008.
61. M. Vemula, M. F. Bugallo, and P. M. Djurić, “Performance comparison of Gaussian-based filters using divergence measures,” *IEEE Signal Processing Letters*, vol. 14(12), pp. 1020–1023, 2007.
62. M. Vemula, M. F. Bugallo, and P. M. Djurić, “Target tracking by fusion of random measures,” *Signal, Image and Video Processing (Springer)*, vol. 1(2), pp. 149–161, 2007.
63. L. N. Manganas, X. Zhang, Y. Li, R. D. Hazel, S. D. Smith, M. E. Wagshul, F. Henn, H. Benveniste, P. M. Djurić, G. Enikolopov, M. Maletić-Savatić, “Identification of neural progenitor cells in the live human brain using magnetic resonance spectroscopy,” *Science*, vol. 318(5852), pp. 980–985, 2007.
64. M. F. Bugallo, S. Xu, and P. M. Djurić, “Performance comparison of EKF and particle filtering methods for maneuvering targets,” *Digital Signal Processing*, vol. 17(4), pp. 774–786, 2007.
65. S. Hong, J. Lee, A. Athalye, P. M. Djurić, and W.D. Cho, “Design methodology for domain-specific particle filter realization,” *IEEE Transactions on Circuits and Systems – I: Regular Papers*, vol. 54(9), pp. 1987–2000, 2007.
66. S. Hong, S-S. Chin, M. Bolić, and P. M. Djurić, “Design and implementation of flexible resampling mechanism for parallel particle filters,” *Journal of VLSI Signal Processing Systems for Signal, Image, and Video Technology*, vol. 2006(44), pp. 47–62, 2006.
67. S. Hong and P. M. Djurić, “High-throughput scalable parallel resampling mechanism for effective redistribution of particles,” *IEEE Transactions on Signal Processing*, vol. 54(3), pp. 1144–1155, 2006.
68. T. Ghirmai, M. F. Bugallo, J. Míguez, and P. M. Djurić, “A sequential Monte Carlo method for adaptive blind timing estimation and data detection,” *IEEE Transactions on Signal Processing*, vol. 53(8), pp. 2855–2865, 2005.
69. M. Bolić, P. M. Djurić, and S. Hong, “Resampling algorithms and architectures for distributed particle filters,” *IEEE Transactions Signal Processing*, vol. 53(7), pp. 2442–2450, 2005.
70. X. Zhang, K. De Cock, M. F. Bugallo, and P. M. Djurić, “A general method for the computation of probabilities in systems of first order chemical reactions,” *Journal of Chemical Physics*, vol. 122(5), pp. 104101-1, 104101-8, 2005.
71. Y. Huang, J. Zhang, and P. M. Djurić, “Bayesian detection for BLAST,” *IEEE Transactions on Signal Processing*, vol. 53(3), pp. 1086–1096, 2005.
72. K. De Cock, X. Zhang, M. F. Bugallo, and P. M. Djurić, “Comment on stiffness in stochastic chemically reacting systems: The implicit tau-leaping method,” *Journal of Chemical Physics*, vol. 121(7), pp. 3347–3348, 2004.
73. J. Míguez, T. Ghirmai, M. F. Bugallo, and P. M. Djurić, “A sequential Monte Carlo technique for blind synchronization and detection in frequency-flat Rayleigh fading wireless channels,” *Signal Processing*, vol. 84(11), pp. 2081–2096, 2004.
74. J. Míguez and P. M. Djurić, “Blind equalization of frequency selective channels by sequential importance sampling,” *IEEE Transactions on Signal Processing*, vol. 52(10), pp. 2738–2748, 2004.
75. T. Ghirmai, J. Kotecha, and P. M. Djurić, “Semi-blind equalization for time-varying channels using particle filtering” *Digital Signal Processing*, vol. 14(2004), pp. 312–331, 2004.
76. Y. Huang and P. M. Djurić, “A blind particle filtering detector of signals transmitted over flat fading channels,” *IEEE Transactions on Signal Processing*, vol. 52(7), pp. 1891–1900, 2004.

77. Y. Huang and P. M. Djurić, "A hybrid importance function for particle filtering," *IEEE Signal Processing Letters*, vol. 11(3), pp. 404–406, 2004.
78. J. Kotecha and P. M. Djurić, "Blind sequential detection for Rayleigh fading channels using hybrid Monte Carlo - recursive identification algorithms," *Signal Processing*, vol. 84, pp. 825–832, 2004.
79. S. Hong, M. Bolić, and P. M. Djurić, "An efficient fixed-point implementation of residual resampling scheme for high-speed particle filters," *IEEE Signal Processing Letters*, vol. 11(5), pp. 482–485, 2004.
80. P. M. Djurić, J. H. Kotecha, J. Zhang, Y. Huang, T. Ghirmai, M. F. Bugallo, and J. Míguez, "Particle filtering," *IEEE Signal Processing Magazine*, vol. 20(5), pp. 19–38, 2003.
81. J. Kotecha and P. M. Djurić, "Gaussian particle filtering," *IEEE Transactions on Signal Processing*, vol. 51(10), pp. 2592–2601, 2003.
82. J. Kotecha and P. M. Djurić, "Gaussian sum particle filtering," *IEEE Transactions on Signal Processing*, vol. 51(10), pp. 2602–2612, 2003.
83. J.-L. Pan, and P. M. Djurić, "Multibeam cellular mobile communication systems with dynamic channel assignment," *IEEE Transactions on Vehicular Technology*, vol. 51(5), pp. 1252–1258, 2002.
84. Y. Huang and P. M. Djurić, "Multiuser detection of synchronous code-division multiple-access signals by perfect sampling," *IEEE Transactions on Signal Processing*, vol. 50(7), pp. 1724–1734, 2002.
85. P. M. Djurić and S. J. Godsill, "Guest editorial: Special issue on Monte Carlo methods for statistical signal processing," *IEEE Transactions on Signal Processing*, vol. 50(2), p. 173, 2002.
86. P. M. Djurić, Y. Huang, and T. Ghirmai, "Perfect sampling: A review and its application to signal processing," *IEEE Transactions on Signal Processing*, vol. 50(2), pp. 345–356, 2002.
87. P. M. Djurić and J.-H. Chun, "Parameter estimation of time-varying hidden Markov models by MCMC sampling," *IEEE Transactions on Signal Processing*, vol. 50(5), pp. 1113–1124, 2002.
88. C. Andrieu, P. M. Djurić, A. Doucet, "Model selection by Markov chain Monte Carlo computations," *Signal Processing*, vol. 81, pp. 19–37, 2001.
89. P. M. Djurić and Y. Huang, "Estimation of a Bernoulli parameter  $p$  from imperfect trials," *IEEE Signal Processing Letters*, vol. 7(6), pp. 160–163, 2000.
90. J.-L. Pan, S. S. Rappaport and P. M. Djurić, "Multibeam cellular communication systems with dynamic channel assignment across multiple sectors," *Wireless Networks Journal*, vol. 5 (4), pp. 267–278, 1999.
91. P. M. Djurić, "Bayesian methods for signal processing," *IEEE Signal Processing Magazine*, vol. 15(5), pp. 26–28, 1998.
92. P. M. Djurić, "Asymptotic MAP criteria for model selection," *IEEE Transactions on Signal Processing*, vol. 46(10), pp. 2726–2735, 1998.
93. H.-T. Li and P. M. Djurić, "MMSE estimation of nonlinear parameters of multiple linear/quadratic chirps," *IEEE Transactions on Signal Processing*, vol. 46(3), pp. 796–800, 1998.
94. B. Obelić, D. Srdoč, P. M. Djurić, and S. Marino, "The frequency distribution of the number of ion pairs in irradiated tissue," *Radiation Research*, vol. 149(5), pp. 411–415, 1998.
95. E. Beadle and P. M. Djurić, "Uniform random parameter generation of stable minimum phase real ARMA (p,q) processes," *IEEE Signal Processing Letters*, vol. 4(9), pp. 259–261, 1997.

96. P. M. Djurić and J.-K. Fwu, "On the detection of edges in vector images," *IEEE Transactions on Image Processing*, vol. 6, pp. 1595–1601, 1997.
97. J.-K. Fwu and P. M. Djurić, "EM algorithm for image segmentation initialized by a tree structure scheme," *IEEE Transactions on Image Processing*, vol. 6(2), pp. 349–352, 1997.
98. E. R. Beadle and P. M. Djurić, "A fast weighted Bayesian bootstrap filter for nonlinear model state estimation," *IEEE Transactions on Aerospace and Electronic Systems*, vol. 33 (1), pp. 338–343, 1997.
99. P. M. Djurić, "A model selection rule for sinusoids in Gaussian noise," *IEEE Transactions on Signal Processing*, vol. 44(7), pp. 1744–1751, 1996.
100. J.-K. Fwu and P. M. Djurić, "Unsupervised vector image segmentation by a tree structure - ICM algorithm," *IEEE Transactions on Medical Imaging*, vol. 15(6), pp. 871–880, 1996.
101. H.-T. Li and P. M. Djurić, "A novel approach to detection of closely spaced sinusoids," *Signal Processing*, vol. 51(2), pp. 93–104, 1996.
102. H.-T. Li and P. M. Djurić, "An iterative MMSE procedure for parameter estimation of damped sinusoidal signals," *Signal Processing*, vol. 51(2), pp. 105–120, 1996.
103. W. B. Bishop and P. M. Djurić, "Model order selection of damped sinusoids in noise by predictive densities," *IEEE Transactions on Signal Processing*, vol. 44(3), pp. 611–619, 1996.
104. P. M. Djurić and H.-T. Li, "Bayesian spectrum estimation of harmonic signals," *IEEE Signal Processing Letters*, vol. 2(11), pp. 213–215, 1995.
105. C.-M. Cho and P. M. Djurić, "Bayesian detection and estimation of sinusoids in colored noise," *IEEE Transactions on Signal Processing*, vol. 42(11), pp. 2943–2952, 1995.
106. P. M. Djurić and S. M. Kay, "Model selection based on Bayesian predictive densities and multiple data records," *IEEE Transactions on Signal Processing*, vol. 42(7), pp. 1685–1699, 1994.
107. C.-M. Cho and P. M. Djurić, "Detection and estimation of DOAs of signals via Bayesian predictive densities," *IEEE Transactions on Signal Processing*, vol. 42(11), pp. 3051–3060, 1994.
108. M. M. Begović, P. M. Djurić, S. Dunlap, and A. G. Phadke, "Frequency tracking in power networks in the presence of harmonics," *IEEE Transactions on Power Delivery*, vol. 8(2), pp. 480–486, 1993.
109. P. M. Djurić and S. M. Kay, "Order selection of autoregressive models," *IEEE Transactions on Signal Processing*, vol. 40(11), pp. 2829–2833, 1992.
110. P. M. Djurić, M. M. Begović, and M. Doroslovački, "Instantaneous phase tracking in power networks by demodulation," *IEEE Transactions on Instrumentation and Measurement*, vol. 41(6), pp. 963–967, 1992.
111. P. M. Djurić and S. M. Kay, "Parameter estimation of chirp signals," *IEEE Transactions on Acoustics, Speech, and Signal Processing*, vol. 38(12), pp. 2118–2126, 1990.

#### **1.4. Papers in international journals of high reputation (M22)**

1. M. Stanačević, A. Athalye, Z. J. Haas, S. R. Das, and P. M. Djurić, "Backscatter communications with passive receivers: From fundamentals to applications," *ITU Journal on Future and Evolving Technologies*, <http://www.itu.int/pub/S-ITUJNL-JFETS.V11I1-1-2020>, 2020.

2. N. Vukmirović, M. Janjić, P. M. Djurić, and M. Erić, “Position estimation with a millimeter-wave massive MIMO system based on distributed steerable phased antenna arrays, *EURASIP Journal on Advances in Signal Processing*, 2018: 33. [https://doi.org/10.1186/s13634-018-0553-92108\(1\)](https://doi.org/10.1186/s13634-018-0553-92108(1)), 2018.
3. I. Urteaga, M. Bugallo, and P. M. Djurić, “Sequential Monte Carlo for inference of latent ARMA time-series with innovations correlated in time,” *EURASIP Journal on Advances in Signal Processing*, (2017) 2017:84, 2017.
4. J. Míguez, M. F. Bugallo, and P. M. Djurić, “Erratum on ‘A new class of particle filters for random dynamical systems with unknown statistics,’ ” *EURASIP Journal on Applied Signal Processing*, Article ID 78708, 2006.
5. S. Hong, P. M. Djurić, and M. Bolić, “Simplifying physical realization of Gaussian particle filters with block-level pipeline control,” *EURASIP Journal on Applied Signal Processing*, vol. 2005(4), pp. 575–587, 2005.
6. A. Athalye, M. Bolić, S. Hong, and P. M. Djurić, “Generic hardware architectures for sampling and resampling in particle filters,” *EURASIP Journal on Applied Signal Processing*, vol. 2005(17), pp. 2888–2902, 2005.
7. Y. Huang, J. Zhang, I. T. Luna, and P. M. Djurić, “Adaptive blind multiuser detection over flat fast-fading channels using particle filtering,” *EURASIP Journal on Wireless Communications and Networking*, vol. 2005(2), pp. 130–140, 2005.
8. P. M. Djurić, S. J. Godsill, and A. Doucet, “Particle filtering in signal processing,” Special Issue on Particle Filtering in Signal Processing - Editorial *EURASIP Journal on Applied Signal Processing*, vol. 2004(15), pp. 2239–2241, 2004.
9. M. Bolić, P. M. Djurić, and S. Hong, “Resampling algorithms for particle filters: A computational complexity perspective,” *EURASIP Journal on Applied Signal Processing*, vol. 2004(15), pp. 2267–2277, 2004.
10. J. Míguez, M. F. Bugallo, and P. M. Djurić, “A new class of particle filters for random dynamical systems with unknown statistics,” *EURASIP Journal on Applied Signal Processing*, vol. 2004(15), pp. 2278–2294, 2004.
11. P. M. Djurić, J. Kotecha, F. Esteve, and E. Perret, “Sequential parameter estimation of time-varying non-Gaussian autoregressive processes,” *EURASIP Journal on Applied Signal Processing*, vol. 2002(8), pp. 865–875, 2002.
12. J. Zhang and P. M. Djurić, “Joint estimation and decoding of space-time trellis codes,” *EURASIP Journal on Applied Signal Processing*, vol. 2002(3), pp. 305–315, 2002.
13. Y. Huang and P. M. Djurić, “Variable selection by perfect sampling,” *EURASIP Journal on Applied Signal Processing*, vol. 2002(1), pp. 38–45, 2002.
14. S. Lésage, J.-Y. Tournet, and P. M. Djurić, “Classification of digital modulations by MCMC methods,” *Monte Carlo Methods and Applications*, vol. 7, pp. 273–282, International Science Publishers, The Netherlands, 2001.

### **1.5. Papers in international journals (M23)**

1. P. M. Djurić, “Signal Processing: The ubiquitous stealth technology,” *The Corridor*, vol. 2(5), pp. 48–49, 2014.

### **1.6. Papers in in proceedings of international conferences/workshops (M33)**

1. Y. Liu and P. M. Djurić, “The use of Gaussian processes as particles for sequential Monte Carlo estimation of time-varying functions,” *Proceedings of the European Signal Processing Conference*, Dublin, Ireland, 2021.
2. L. Yang, M. Ajirak, C. Heiselman, J. G. Quirk, and P. M. Djurić, “Unsupervised detection of anomalies in fetal heart rate tracings using phase space reconstruction,” *Proceedings of the European Signal Processing Conference*, Dublin, Ireland, 2021.

3. M. Ajirak, C. Heiselman, A. Fuchs, M. Heiligenstein, K. Herrera, D. Garretto, and P. M. Djurić, “Bayesian nonparametric dimensionality reduction of categorical data for predicting severity of COVID-19 in pregnant women,” *Proceedings of the European Signal Processing Conference*, Dublin, Ireland, 2021.
4. L. Yang, C. Heiselman, J. G. Quirk, and P. M. Djurić, “Class-imbalances classifiers using ensembles of Gaussian processes and Gaussian process latent variable models,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Toronto, Canada, 2021.
5. L. Yang, C. Heiselman, J. G. Quirk, and P. M. Djurić, “Identification of uterine contractions by an ensemble of Gaussian processes,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Toronto, Canada, 2021.
6. H. Wang, M. F. Bugallo, and P. M. Djurić, “Adaptive importance sampling via auto-regressive generative models and Gaussian processes,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Toronto, Canada, 2021.
7. Y. El-Laham, L. Yang, H. Lynch, P. M. Djurić, and M. F. Bugallo, “Particle Gibbs sampling for regime-switching state-space models,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Toronto, Canada, 2021.
8. D. Johnston and P. M. Djurić, “Bayesian estimation of a tail-index with marginalized threshold,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Toronto, Canada, 2021.
9. Y. Huang, A. Athalye, S. Das, P. M. Djurić, and M. Stanačević, “RF Energy Harvesting and Management for Near-zero Power Passive Devices,” *IEEE International Symposium on Circuits and Systems*, 2021.
10. G. Feng, C. Heiselman, G. Quirk, and P. M. Djurić, “Estimation of consecutively missed samples in fetal heart rate recordings,” *Proceedings of the European Signal Processing Conference*, Amsterdam, Holland, 2020.
11. Y. Liu and P. M. Djurić, “Gaussian process state-space models with time varying parameters,” *Proceedings of the European Signal Processing Conference*, Amsterdam, Holland, 2020.
12. Y. El-Laham, L. Yang, P. M. Djurić, and M. F. Bugallo, “Particle filtering under general regime switching,” *Proceedings of the European Signal Processing Conference*, Amsterdam, Holland, 2020.
13. D. Johnston and P. M. Djurić, “A recursive Bayesian solution for the excess over threshold distribution with stochastic parameters,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Barcelona, Spain, 2020.
14. Y. El-Laham, P. M. Djurić, and M. F. Bugallo, “Enhanced mixture population Monte Carlo via stochastic optimization and Markov chain Monte Carlo sampling,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Barcelona, Spain, 2020.
15. A. Ahmad, Y. Huang, X. Sha, A. Athalye, M. Stanačević, S. R. Das, and P. M. Djurić, “On measuring Doppler shifts between tags in backscattering tag-to-tag network with applications in tracking,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Barcelona, Spain, 2020.
16. G. Feng, K. Yu, J. G. Quirk, and P. M. Djurić, “Discovering causalities from cardiocography signals using improved convergent cross mapping with Gaussian processes,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Barcelona, Spain, 2020.
17. G. Feng, K. Yu, Y. Wang, Y. Yuan, and P. M. Djurić, “Improving convergent cross mapping for causal discovery with Gaussian processes,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Barcelona, Spain, 2020.

18. A. Chakraborty, C. Zhan, H. Gupta, and P. M. Djurić, "Selection of sensors for efficient transmitter localization," *Proceedings of Infocom: IEEE International Conference on Computer Communications*, Beijing, China, 2020.
19. G. Feng, J. G. Quirk, and P. M. Djurić, "Extracting interpretable features for fetal heart rate recordings with Gaussian processes," *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, Guadeloupe, West Indies, 2019.
20. H. Wang, M. F. Bugallo, and P. M. Djurić, "Adaptive importance sampling supported by a variational auto-encoder," *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, Guadeloupe, West Indies, 2019.
21. X. Sha, Y. Karimi, S. Das, P. M. Djurić, and M. Stanačević, "Study of mm-sized Coil to Coil Backscatter Based Communication Link," *Proceedings of the IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference*, New York City, NY, 2019.
22. G. Feng, J. G. Quirk, and P. M. Djurić, "Detecting causality using deep Gaussian processes," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA, 2019.
23. A. Guerra, D. Dardari, and P. M. Djurić, "Non-centralized navigation for source localization by cooperative UAVs," *Proceedings of the European Signal Processing Conference*, La Coruña, Spain, 2019.
24. Y. Karimi, Y. Huang, A. Athalye, S. Das, P. M. Djurić, and M. Stanačević, "Passive wireless channel estimation in RF tag network," *Proceedings of the IEEE International Symposium on Circuits and Systems*, Sapporo, Japan, 2019.
25. D. Johnston and P. M. Djurić, "A recursive Bayesian model for extreme values," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Brighton, UK, 2019.
26. Y. El-Laham, P. M. Djurić, M. F. Bugallo, "A variational adaptive population importance sampler," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Brighton, UK, 2019.
27. P. M. Djurić and P. Closas, "On self-assessment of proficiency of autonomous systems," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Brighton, UK, 2019.
28. G. Feng, J. G. Quirk, and P. M. Djurić, "Inference about causality from cardiography signals using Gaussian processes," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Brighton, UK, 2019.
29. L. Gan, A. Hensley, and P. M. Djurić, "Modeling and estimation of interactions of Yule-Simon processes," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Brighton, UK, 2019.
30. M. Stanačević, Y. Karimi, G. Feng, J. Ryoo, A. Athalye, S. Das, P. M. Djurić, "RF-based analytics generated by tag-to-tag networks," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Brighton, UK, 2019.
31. G. Feng, J. G. Quirk, and P. M. Djurić, "Supervised and unsupervised learning of fetal heart rate tracings with deep Gaussian processes," *Proceedings of Neural Networks and Applications*, Belgrade, Serbia, 2018.
32. J. Ryoo, Y. Karimi, A. Athalye, M. Stanačević, S. R. Das, P. M. Djurić, "BARNET: Towards activity recognition using passive backscattering tag-to-tag network," *Proceedings of Mobisys, the 16th ACM International Conference on Mobile Systems*, Munich, Germany, 2018.
33. A. Chakraborty, A. Bhattacharya, S. Kamal, S. R. Das, H. Gupta, and P. M. Djurić, "Spectrum patrolling with crowdsourced spectrum sensors," *Proceedings of Infocom: IEEE International Conference on Computer Communications*, Honolulu, HI 2018.

34. M. Dowling, J. Nassar, P. M. Djurić, and M. F. Bugallo, "Improved adaptive importance sampling based on variational inference," *Proceedings of the European Signal Processing Conference*, Rome, Italy, 2018.
35. F. Hawas and P. M. Djurić, "Graph representation using mutual information for graph model discrimination," *Proceedings of the European Signal Processing Conference*, Rome, Italy, 2018.
36. M. Dowling, M. F. Bugallo, Samir R. Das, and P. M. Djurić, "Tracking of objects in a passive backscattering tag-to-tag network," *Proceedings of the IEEE Workshop on Signal Processing Advances in Wireless Communications*, Kalamata, Greece, 2018.
37. A. Guerra, N. Sparnacci, D. Dardari, and P. M. Djurić, "Collaborative target-localization and information-based control in networks of UAVs," *Proceedings of the IEEE Workshop on Signal Processing Advances in Wireless Communications*, Kalamata, Greece, 2018.
38. E. Salman, M. Stanačević, S. Das, and P. M. Djurić, "Leveraging RF power for intelligent tag networks," *Proceedings of the 2018 on Great Lakes Symposium on VLSI*, Chicago, IL, 2018.
39. E. Arias-de-Reyna, P. Closas, D. Dardari, and Petar M. Djurić, "Estimation of spatial fields of NLOS/LOS conditions for improved localization in indoor environments," *Proceedings of the IEEE Statistical Signal Processing Workshop*, Freiburg, Germany, 2018.
40. I. Santos, J.-J. Murillo, and P. M. Djurić, "Recursive estimation of time-varying RSS fields based on crowdsourcing and Gaussian processes," *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, Curaçao, 2017.
41. H. Wang and P. M. Djurić, "Diffusion in networks by cooperative particle filtering," *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, Curaçao, 2017.
42. L. Gan and P. M. Djurić, "Bayesian selection of models of network formation," *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, Curaçao, 2017.
43. Ç. Taşdemir, M. F. Bugallo, and P. M. Djurić, "A particle-based approach for topology estimation of gene networks," *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, Curaçao, 2017.
44. K. Yu, J. G. Quirk, P. M. Djurić, "Analysis of fetal heart rate series by nonparametric hidden Markov models," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA, 2017.
45. I. Santos and P. M. Djurić, "Crowdsource-based signal strength field estimation by Gaussian processes," *Proceedings of the European Signal Processing Conference*, Kos, Greece, 2017.
46. G. Feng, J. G. Quirk, and P. M. Djurić, "Recovery of missing samples in fetal heart rate recordings with Gaussian processes," *Proceedings of the European Signal Processing Conference*, Kos, Greece, 2017.
47. V. Elvira, J. Míguez, and P. M. Djurić, "Robust inference by particle filtering," *Proceedings of the International Statistical Institute*, Marrakesh, Morocco, 2017.
48. Y. Karimi, A. Athalye, S. Das, P. M. Djurić, and M. Stanačević "Design of a backscatter-based tag-to-tag system," *Proceedings of the IEEE International Conference on RFID*, Phoenix, AZ, 2017.
49. L. Gan, Y. Wang, and P. M. Djurić, "Bayesian learning in a network with multi-hypothesis decision exchanges," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, New Orleans, LA, 2017.
50. E. Arias-de-Reyna, D. Dardari, P. Closas, and P. M. Djurić, "Enhanced indoor localization through crowd sensing," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, New Orleans, LA, 2017.

51. A. Hensley and P. M. Djurić, "Nonparametric learning for hidden Markov models with preferential attachment dynamics," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, New Orleans, LA, 2017.
52. I. Urteaga, M. F. Bugallo, and P. M. Djurić, "Multiple particle filtering for inference in the presence of state correlation of unknown mixing parameters," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, New Orleans, LA, 2017.
53. K. Yu, J. G. Quirk, and P. M. Djurić, "Fetal heart rate classification by non-parametric Bayesian methods," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, New Orleans, LA, 2017.
54. M. Begović, I. Kim, B. Vidaković, P. M. Djurić, V. Jeremić, "Impact of short-term variations in the generation output of geographically dispersed PV systems," *Proceedings of the 50th Hawaii International Conference on System Sciences*, Waikoloa Village, HI, 2017.
55. P. M. Djurić and K. Dedecius, "Bayesian estimation of unknown parameters over networks," *Proceedings of the European Signal Processing Conference*, Budapest, Hungary, 2016.
56. I. Urteaga, M. F. Bugallo, and P. M. Djurić, "Sequential Monte Carlo methods under model uncertainty," *Proceedings of the IEEE Statistical Signal Processing Workshop*, Palma de Mallorca, Spain, 2016.
57. V. Elvira, J. Míguez, and P. M. Djurić, "A novel algorithm for adapting the number of particles in particle filtering," *Proceedings of the IEEE Sensor Array and Multichannel Signal Processing Workshop*, Rio De Janeiro, Brazil, 2016.
58. A. Athalye, J. Jian, Y. Karimi, S. R. Das, and P. M. Djurić, "Analog front end design for tags in backscatter-based tag-to-tag communication networks," *Proceedings of the IEEE International Symposium on Circuits and Systems*, Montreal, Canada, 2016.
59. V. Elvira, J. Míguez, and P. M. Djurić, "Online Adaptation of the Number of Particles of SMC methods," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Shanghai, China, 2016.
60. Y. Wang, L. Gan, and P. M. Djurić, "Opinion dynamics in multi-agent systems with binary decision exchanges," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Shanghai, China, 2016.
61. I. Urteaga, M. F. Bugallo, and P. M. Djurić, "Sequential Monte Carlo sampling for correlated latent long-memory time-series," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Shanghai, China, 2016.
62. K. Yu and P. M. Djurić, "Dirichlet process mixture models for time-dependent clustering," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Shanghai, China, 2016.
63. K. Yu, J. G. Quirk, and P. M. Djurić, "Fetal heart rate analysis by hierarchical Dirichlet process mixture models," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Shanghai, China, 2016.
64. Y. Wang, L. Gan, and P. M. Djurić, "Bayesian social learning with decision making in multiple rounds," *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, Cancún, Mexico, 2015.
65. I. Urteaga, M. F. Bugallo, and P. M. Djurić, "Filtering of nonlinear time-series coupled by fractional Gaussian processes," *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, Cancún, Mexico, 2015.
66. P. M. Djurić and K. Yu, "On generative models for sequential formation of clusters," *Proceedings of the European Signal Processing Conference*, Nice, France, 2015.

67. I. Urteaga, M. F. Bugallo, and P. M. Djurić, "Sequential Monte Carlo sampling for systems with fractional Gaussian processes," *Proceedings of the European Signal Processing Conference*, Nice, France, 2015.
68. M. F. Bugallo, Ç. Taşdemir, and P. M. Djurić, "Estimation of gene expression by a bank of filters," *Proceedings of the European Signal Processing Conference*, Nice, France, 2015.
69. K. Dedecius and P. M. Djurić, "Diffusion filtration with approximate Bayesian computation," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Brisbane, Australia, 2015.
70. I. Urteaga and P. M. Djurić, "Particle filtering of ARMA processes of unknown order and parameters," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Brisbane, Australia, 2015.
71. Y. Wang and P. M. Djurić, "Bayesian social learning in linear networks of agents with random behavior," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Brisbane, Australia, 2015.
72. L. Geng, M. F. Bugallo, and P. M. Djurić, "Real-time self-tracking in the Internet of Things," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Brisbane, Australia, 2015.
73. J. Beaudeau, M. F. Bugallo and P. M. Djurić, "On optimal mobile RSSI-sensor positioning for multi target tracking," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Brisbane, Australia, 2015.
74. P. M. Djurić and M. F. Bugallo, "Multiple particle filtering with improved efficiency and performance," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Brisbane, Australia, 2015.
75. M. Bolić, M. Rostamian, and P. Djurić, "Proximity detection with RFID in the Internet of Things," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA, 2014.
76. Z. Weng and P. M. Djurić, "Consensus for continuous belief functions," *Proceedings of the European Signal Processing Conference*, Lisbon, Portugal, 2014.
77. S. Dash and P. M. Djurić, "On the segmentation of switching autoregressive processes by nonparametric Bayesian methods," *Proceedings of the European Signal Processing Conference*, Lisbon, Portugal, 2014.
78. Y. Wang and P. M. Djurić, "On sequential estimation of linear models from data with correlated noise," *Proceedings of the European Signal Processing Conference*, Lisbon, Portugal, 2014.
79. M. F. Bugallo and P. M. Djurić, "Gaussian particle filtering in high-dimensional systems," *Proceedings of the IEEE Statistical Signal Processing Workshop*, Gold Coast, Australia, 2014.
80. P. M. Djurić and A. Bravo, "Cooperative mesh networks with EGC detectors," *Proceedings of the IEEE Sensor Array and Multichannel Signal Processing Workshop*, La Coruña, Spain, 2014.
81. Z. Shen and P. M. Djurić, "Distributed Bayesian learning with a Bernoulli model," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Florence, Italy, 2014.
82. J. Beaudeau, M. F. Bugallo, and P. M. Djurić, "Analysis of the cross-target measurement fusion likelihood for RSSI-based sensors," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Florence, Italy, 2014.
83. Y. Wang and P. M. Djurić, "Sequential Bayesian learning in linear networks with random decision making," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Florence, Italy, 2014.
84. M. F. Bugallo and P. M. Djurić, "Particle filtering in high-dimensional systems with Gaussian approximations," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Florence, Italy, 2014.

85. Z. Weng and P. M. Djurić, "Efficient learning by consensus over regular networks," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Florence, Italy, 2014.
86. I. Urteaga and P. M. Djurić, "Estimation of ARMA state processes by particle filtering," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Florence, Italy, 2014.
87. P. M. Djurić and M. F. Bugallo, "Particle filtering for high-dimensional systems," *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, Saint Martin, 2013.
88. Y. Wang and P. M. Djurić, "Reaching optimal Bayesian belief over networks in the presence of communication noise," *Proceedings of Global SIP*, Austin, TX, 2013.
89. Y. Wang and P. M. Djurić, "Sequential estimation of linear models in distributed settings," *Proceedings of the European Signal Processing Conference*, Marrakesh, Morocco, 2013.
90. Z. Weng and P. M. Djurić, "Distributed estimation in the presence of correlated noises," *Proceedings of the European Signal Processing Conference*, Marrakesh, Morocco, 2013.
91. M. F. Bugallo, J. Beaudeau, and P. M. Djurić, "A mobile system for non-centralized target tracking in presence of dynamic interferences," *Proceedings of the European Signal Processing Conference*, Marrakesh, Morocco, 2013.
92. Y. Wang and P. M. Djurić, "Reaching Bayesian consensus in cognitive systems by decision exchanges," *Proceedings of the European Signal Processing Conference*, Marrakesh, Morocco, 2013.
93. L. Geng, M. F. Bugallo, and P. M. Djurić, "Tracking with asynchronous binary readings and layout information in RFID systems with sense-a-tags," *Proceedings of the European Signal Processing Conference*, Marrakesh, Morocco, 2013.
94. Z. Weng and P. M. Djurić, "Data fusion based on convex optimization," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Vancouver, Canada, 2013.
95. P. M. Djurić and A. Ferrari, "Models with products of Dirichlet processes," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Vancouver, Canada, 2013.
96. D. E. Johnston, I. Urteaga, and P. M. Djurić, "Replication and optimization of hedge fund risk factor exposures," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Vancouver, Canada, 2013.
97. L. Geng, M. F. Bugallo, and P. M. Djurić, "Tracking with RFID asynchronous measurements by particle filtering," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Vancouver, Canada, 2013.
98. P. M. Djurić and A. Ferrari, "Classification of multivariate data using Dirichlet process mixture models," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2012.
99. P. M. Djurić and M. F. Bugallo, "Particle filtering for multivariate state-space models," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2012.
100. S. Dash and P. M. Djurić, "Learning dependencies among fetal heart rate features using Bayesian networks," *Proceedings of the IEEE International Conference on Engineering in Medicine and Biology*, San Diego, CA, 2012.
101. L. Geng, M. F. Bugallo, A. Athalye, and P. M. Djurić, "Real time indoor tracking of tagged objects with a network of RFID readers," *Proceedings of the European Signal Processing Conference*, Bucharest, Romania, 2012.
102. Z. Weng and P. M. Djurić, "A Bayesian approach to covariance estimation and data fusion," *Proceedings of the European Signal Processing Conference*, Bucharest, Romania, 2012.

103. P. M. Djurić and Ç. Taşdemir, "Estimating of posterior distributions with population Monte Carlo sampling and graphical modeling," *Proceedings of the IEEE Statistical Signal Processing Workshop*, Ann Arbor, MI, 2012.
104. D. E. Johnston and P. M. Djurić, "Estimating hedge fund risk factor exposures," *Proceedings of Workshop on Signal Processing Advances in Wireless Communications*, Çeşme, Turkey, 2012.
105. O. Hlinka, F. Hlawatsch, and P. M. Djurić, "Likelihood consensus-based distributed particle filtering with distributed proposal density adaptation," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Kyoto, Japan, 2012.
106. B. Shen, M. F. Bugallo, and P. M. Djurić, "Estimation of multimodal posterior distributions of chirp parameters with population Monte Carlo sampling," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Kyoto, Japan, 2012.
107. Y. Wang and P. M. Djurić, "Reaching consensus on a binary state by exchanging binary actions," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Kyoto, Japan, 2012.
108. S. Dash, J. Muscat, J. G. Quirk, and P. M. Djurić, "Classification of fetal heart rate series," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Kyoto, Japan, 2012.
109. J. Beaudeau, M. F. Bugallo, and P. M. Djurić, "Target tracking with asynchronous measurements by a network of distributed mobile agents," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Kyoto, Japan, 2012.
110. L. Geng and P. M. Djurić, "Non-centralized target tracking in networks of directional sensors: Further advances," *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, San Juan, Puerto Rico, 2011.
111. O. Slučiak, O. Hlinka, M. Rupp, F. Hlawatsch, and P. M. Djurić, "Sequential likelihood consensus and its application to distributed particle filtering with reduced communications and latency," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2011.
112. S. Dash, J. Muscat, J. G. Quirk, and P. M. Djurić, "Implementation of NICHD diagnostic criteria for feature extraction and classification of fetal heart rate signals," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2011.
113. P. M. Djurić, B. Shen, and M. F. Bugallo, "Population Monte Carlo methodology a la Gibbs sampling," *Proceedings of the European Signal Processing Conference*, Barcelona, Spain, 2011.
114. P. M. Djurić and Y. Wang, "Evolution of social belief in multiagent systems," *Proceedings of the IEEE Statistical Signal Processing Workshop*, Nice, France, 2011.
115. P. M. Djurić and D. E. Johnston, "Estimation of predictive loss distributions by particle filtering," *Proceedings of the IEEE Statistical Signal Processing Workshop*, Nice, France, 2011.
116. V. Savić, A. Athalye, M. Bolić, and P. M. Djurić, "Particle filtering for indoor RFID tag tracking," *Proceedings of the IEEE Statistical Signal Processing Workshop*, Nice, France, 2011.
117. O. Hlinka, O. Slučiak, F. Hlawatsch, P. M. Djurić, and M. Rupp, "Distributed Gaussian particle filtering using likelihood consensus," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Prague, Czech Republic, 2011.
118. P. M. Djurić, J. Beaudeau, and M. F. Bugallo, "Non-centralized target tracking with mobile agents," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Prague, Czech Republic, 2011.

119. A. Athalye, V. Savić, M. Bolić, and P. M. Djurić, "A radio frequency identification system for accurate indoor localization," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, pp. 1777-1780, Prague, Czech Republic, 2011.
120. M. F. Bugallo, S. Dash, G. Botchkina, M. Lops, and P. M. Djurić, "A stochastic compartmental approach to modeling and simulation of cancer spheroid formation and evolution," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Prague, Czech Republic, 2011.
121. B. Balasingam, M. Bolić, P. M. Djurić, and J. Míguez, "Efficient distributed resampling for particle filters," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Prague, Czech Republic, 2011.
122. P. M. Djurić and L. Geng, "Non-centralized target tracking in networks of directional sensors," *Proceedings of the IEEE Aerospace Conference*, Big Sky, MT, 2011.
123. M. M. Begović, P. M. Djurić, and Y. Song, "On localized techniques for detection of voltage stability related problems," *Proceedings of the International Conference on System Sciences*, Kauai, HI, 2011.
124. P. M. Djurić and M. Bugallo, "Adaptive systems of particle filters," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2010.
125. O. Hlinka, O. Slučiak, F. Hlawatsch, P. M. Djurić, and M. Rupp, "Likelihood consensus: Principles and application to distributed particle filtering," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2010.
126. M. F. Bugallo, M. Lops, S. Dash, G. Botchkina, and P. M. Djurić, "Random set theory for biological systems: Understanding cancer stem cell evolution," *Proceedings of the Sixth Joint Workshop on Coding and Communications (JWCC)*, Santo Stefano Belbo, Italy, 2010.
127. B. Shen, M. F. Bugallo, and P. M. Djurić, "Multiple marginalized population Monte Carlo," *Proceedings of the European Signal Processing Conference*, Aalborg, Denmark, 2010.
128. P. M. Djurić, P. Closas, M. F. Bugallo, and J. Míguez, "Evaluation of a method's robustness," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Dallas, TX, 2010.
129. M. F. Bugallo, G. Botchkina, and P. M. Djurić, "A stochastic model of proliferation of cancer stem cells and its estimation by particle filtering," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Dallas, TX, 2010.
130. M. F. Bugallo and P. M. Djurić, "Target tracking by symbiotic particle filtering," *Proceedings of the IEEE Aerospace Conference*, Big Sky, MT, 2010.
131. M. Begović and P. M. Djurić, "On predicting times to failure of power equipment using historical failure information," *Proceedings of the International Conference on System Sciences*, Kauai, HI, 2010.
132. O. Hlinka, P. M. Djurić, and F. Hlawatsch, "Time-space-sequential distributed particle filtering with low-rate communications," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2009.
133. P. M. Djurić, M. F. Bugallo, P. Closas, and J. Míguez, "Measuring the robustness of sequential methods," *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, Aruba, 2009.
134. C. S. Maíz, J. Míguez, and P. M. Djurić, "Particle filtering in the presence of outliers," *Proceedings of IEEE Statistical Signal Processing Workshop*, Cardiff, UK, 2009.

135. V. Mane, M. F. Bugallo, and P. M. Djurić, "A stochastic approach to studying biochemical reactions without Monte Carlo simulations," *Proceedings of the IEEE Statistical Signal Processing Workshop*, Cardiff, UK, 2009.
136. P. M. Djurić and M. F. Bugallo, "Estimation of stochastic rate constants and tracking of species in biochemical networks with second-order reactions," *Proceedings of the European Signal Processing Conference*, Glasgow, Scotland, 2009.
137. S. Chiwate, Z. Zhang, K. Mernick, B. Shen, D. Vavilov, M. F. Bugallo, P. M. Djurić, H. Takai, and M. Marx, "Software defined radio based radar system for meteor detection," *Proceedings of the Digital Signal Processing Workshop*, Santorini, Greece, 2009.
138. V. Mane, M. F. Bugallo, and P. M. Djurić, "Stochastic modeling of second order reactions using a moment propagation method," *Proceedings of GENSIPS*, Chicago, IL, 2009.
139. A. Bravo-Santos and P. M. Djurić, "Cooperative relay communications in mesh networks" *Proceedings of Workshop on Signal Processing Advances in Wireless Communications*, Perugia, Italy, 2009.
140. P. M. Djurić and J. Míguez, "Model assessment with Kolmogorov-Smirnov statistics," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Taipei, Taiwan, 2009.
141. M. Bugallo, M. Hong, and P. M. Djurić, "Marginalized population Monte Carlo," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Taipei, Taiwan, 2009.
142. P. Closas, M. F. Bugallo, and P. M. Djurić, "Assessing robustness of particle filtering by the Kolmogorov-Smirnov statistics," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Taipei, Taiwan, 2009.
143. H. Snoussi, J.-Y. Tourneret, P. M. Djurić, and C. Richard, "Data-driven online variational filtering in wireless sensor networks," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Taipei, Taiwan, 2009.
144. P. M. Djurić and M. F. Bugallo, "Improved target tracking with particle filtering," *Proceedings of the IEEE Aerospace Conference*, Big Sky, MT, 2009.
145. J. Míguez, C. Maíz, P. M. Djurić, and D. Crisan, "Sequential Monte Carlo optimization using artificial state-space models," *13th Digital Signal Processing Workshop and 5th Signal Processing Education Workshop*, Marco Island, Florida, 2009.
146. M. F. Bugallo, C. Maíz, J. Míguez, and P. M. Djurić, "Cost-reference particle filters and fusion of information," *13th Digital Signal Processing Workshop and 5th Signal Processing Education Workshop*, Marco Island, Florida, 2009.
147. M. F. Bugallo and P. M. Djurić, "Complex systems and particle filtering," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2008.
148. P. M. Djurić and M. F. Bugallo, "Particle filtering and the inverse problem of biochemical networks," *Proceedings of the European Signal Processing Conference*, Lausanne, Switzerland, 2008.
149. M. F. Bugallo, and P. M. Djurić, "A stochastic approach to solving inverse problems of biochemical networks," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Las Vegas, NE, 2008.
150. V. Mane, M. F. Bugallo, and P. M. Djurić, "Stochastic simulation of coupled chemical reactions using recursive methods," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Las Vegas, NE, 2008.
151. Y. Li and P. M. Djurić, "Target tracking with mobile sensors using cost-reference particle filtering," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Las Vegas, NE, 2008.

152. T. Lu, M. F. Bugallo, and P. M. Djurić, “RLS-assisted cost-reference particle filtering,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Las Vegas, NE, 2008.
153. M. Maletić-Savatić, L. K. Vingara, L. N. Manganas, Y. Li, S. Zhang, A. Sierra, R. Hazel, D. Smith, M. E. Wagshul, F. Henn, L. Krupp, G. Enikolopov, H. Benveniste, P. M. Djurić, and I. Pelczer, “Metabolomics of neural progenitor cells: a novel approach to biomarker discovery,” *Cold Spring Harbor Symposia on Quantitative Biology*, vol. 73, p. 389–401, 2008.
154. P. M. Djurić, Z. Zhang, and M. F. Bugallo, “Target tracking by a new class of cost-reference particle filters,” *Proceedings of the IEEE Aerospace Conference*, Big Sky, MT, 2008.
155. M. Vemula, M. F. Bugallo, and P. M. Djurić, “Particle filtering-based target tracking in binary sensor networks using adaptive thresholds,” *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, St. Thomas, US Virgin Islands, 2007.
156. M. F. Bugallo, T. Lu, and P. M. Djurić, “Bearings-only tracking with biased measurements,” *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, St. Thomas, US Virgin Islands, 2007.
157. P. M. Djurić, Z. Zhang, and M. F. Bugallo, “A new approach to cost-reference particle filtering,” *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2007.
158. M. F. Bugallo, T. Lu, and P. M. Djurić, “Biased sensors: Localization and data fusion,” *Proceedings of the 15th European Signal Processing Conference*, Poznan, Poland, 2007.
159. M. F. Bugallo, T. Lu, and P. M. Djurić, “Learning by simplified cost-reference particle filtering using biased data,” *Proceedings of the 2007 IEEE International Workshop on Machine Learning for Signal Processing*, Thessaloniki, Greece, 2007.
160. T. Lu, M. F. Bugallo, and P. M. Djurić, “Simplified marginalized particle filtering for tracking multimodal posteriors,” *Proceedings of the IEEE Statistical Signal Processing Workshop*, Madison, WI, 2007.
161. M. F. Bugallo, T. Lu, and P. M. Djurić, “Tracking with biased measurements of signal strength sensors,” *Proceedings of the 15th International Conference on Digital Signal Processing*, Cardiff, UK, 2007.
162. M. F. Bugallo, T. Lu, and P. M. Djurić, “On generalized particle filtering: Advances in theory and applications to target tracking,” *Proceedings of the 10th ONR/GTRI Workshop on Target Tracking and Sensor Fusion*, Monterey, CA, 2007.
163. P. M. Djurić, T. Lu, and M. F. Bugallo, “Multiple particle filtering,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Honolulu, Hawaii, 2007.
164. M. Vemula, M. F. Bugallo, and P. M. Djurić, “Cost-based Monte Carlo sampling approaches for sensor self-localization under beacon position uncertainty,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Honolulu, Hawaii, 2007.
165. Y. Li and P. M. Djurić, “Particle filtering for smart target tracking with mobile sensors,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Honolulu, Hawaii, 2007.
166. S. Xu, M. F. Bugallo, and P. M. Djurić, “Sequential estimation by combined cost-reference particle and Kalman filtering,” *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Honolulu, Hawaii, 2007.
167. M. F. Bugallo, T. Lu and P. M. Djurić, “Target tracking by multiple particle filtering,” *Proceedings of the IEEE Aerospace Conference*, Big Sky, MT, 2007.

168. P. M. Djurić and M. F. Bugallo, "Cost-reference particle filtering for dynamic systems with nonlinear and conditionally linear states," *the IEEE Nonlinear Statistical Signal Processing Workshop*, Cambridge, United Kingdom, 2006.
169. P. M. Djurić, T. Lu, and M. F. Bugallo, "Bearings-only tracking based on multiple sensor measurements and generalized particle filtering," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2006.
170. M. F. Bugallo and P. M. Djurić, "Advantages of cost-reference particle filters for multiple target tracking," *Proceedings of the European Signal Processing Conference*, Florence, Italy, 2006.
171. M. F. Bugallo, M. Vemula, and P. M. Djurić, "On proposal functions for cost-reference particle filtering," *Proceedings of the 4-th IEEE Workshop on Sensor Array and Multichannel Processing*, Waltham, MA, 2006.
172. M. Vemula, M. F. Bugallo, and P. M. Djurić, "Fusion of information for sensor self-localization by a Monte Carlo method," *Proceedings of the 9-th International Conference on Information Fusion*, Florence, Italy, 2006.
173. P. M. Djurić, M. M. Begović, and J. Perkel, "Prediction of power equipment failures based on chronological failure records," *Proceedings of the IEEE International Symposium on Circuits and Systems*, Kos, Greece, 2006.
174. A. Bravo-Santos, A. Artés-Rodríguez, and P. M. Djurić, "Packet combining over Rayleigh channels using signal-to-noise ratio information and detection by the maximum a posteriori criterion," *Proceedings of Workshop on Signal Processing Advances in Wireless Communications*, Cannes, France, 2006.
175. M. F. Bugallo and P. M. Djurić, "Tracking of time-varying number of moving targets in wireless sensor fields by particle filtering," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Toulouse, France, 2006.
176. M. Vemula, M. F. Bugallo, and P. M. Djurić, "Target tracking in a two-tiered hierarchical sensor network," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Toulouse, France, 2006.
177. A. Athalye, S. Hong, and P. M. Djurić, "Distributed architecture and interconnection scheme for multiple model particle filters," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Toulouse, France, 2006.
178. S. Xu, M. F. Bugallo, and P. M. Djurić, "Maneuvering target tracking with simplified cost reference particle filters" *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Toulouse, France, 2006.
179. M. F. Bugallo, S. Xu, and P. M. Djurić, "Comparison of EKF- and PF-based methods in tracking maneuvering targets," *Proceedings of the IEEE Aerospace Conference*, Big Sky, MT, 2006.
180. M. Begović, P. M. Djurić, J. Perkel, B. Vidaković, and D. Novosel, "New probabilistic method for estimation of equipment failures and development of replacement strategies," *International Conference on System Sciences*, Kauai, HI, 2006.
181. P. M. Djurić, M. F. Bugallo, and J.-C. Lim, "Tracking a time-varying number of targets by a wireless sensor network," *Proceedings of the IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing* Puerto Vallarta, Mexico, 2005.
182. M. F. Bugallo, J. Míguez and P. M. Djurić, "Positioning by cost reference particle filters: Study of various implementations," *Proceedings of the 2005 International Conference on "Computer as a tool", EUROCON*, Belgrade, Serbia and Montenegro, 2005.
183. J. Míguez, M. F. Bugallo, and P. M. Djurić, "Decision fusion for distributed target tracking using cost reference particle filtering," *Proceedings of the European Signal Processing Conference*, Antalya, Turkey, 2005.

184. P. M. Djurić, M. Vemula and M. F. Bugallo, "Non-cooperative localization of binary sensors," *Proceedings of the IEEE SP Workshop on Statistical Signal Processing*, Bordeaux, France, 2005.
185. M. Vemula and P. M. Djurić, "Multisensor fusion for target tracking using sequential Monte Carlo methods," *Proceedings of the IEEE SP Workshop on Statistical Signal Processing*, Bordeaux, France, 2005.
186. J. Míguez, M. F. Bugallo, and P. M. Djurić, "Novel particle filtering algorithms for fixed parameter estimation in dynamic systems," *Proceedings of the International Symposium on Image and Signal Processing and Analysis*, Zagreb, Croatia, 2005.
187. A. Giremus, J.-Y. Tourneret, and P. M. Djurić, "An improved regularized particle filter for GPS/INS integration," *Proceedings of Workshop on Signal Processing Advances in Wireless Communications*, New York, NY, 2005.
188. P. M. Djurić, M. Vemula, and M. F. Bugallo, "Tracking with particle filtering in tertiary wireless sensor networks," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Philadelphia, PA, 2005.
189. J. Míguez, S. Xu, M. F. Bugallo, and P. M. Djurić, "Joint estimation of states and transition functions of dynamic systems using cost-reference particle filtering," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Philadelphia, PA, 2005.
190. X. Zhang, K. De Cock, M. F. Bugallo, and P. M. Djurić, "An application of system theory to stochastic models for first order chemical reactions," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Philadelphia, PA, 2005.
191. Y. Huang, J. Zhang, I. T. Luna, and P. M. Djurić, "Adaptive blind multiuser detection over flat fast fading channels using particle filtering," *Proceedings of GLOBECOM*, Dallas, TX, 2004.
192. X. Zhang, K. De Cock, M. F. Bugallo, P. M. Djurić, "Computation of probabilities in enzyme reaction networks," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2004.
193. P. M. Djurić, "Monte Carlo methods for signal processing: Recent advances," *Proceedings of the European Signal Processing Conference*, Vienna, Austria, 2004.
194. S. Hong, X. Liang, M. Bolić, and P. M. Djurić, "Data centric SIR particle filter design using buffer-level pipelining," *Proceedings of ICSP*, Istanbul, Turkey, 2004.
195. S. Hong, X. Liang, M. Bolić, and P. M. Djurić, "Design and synchronization of Gaussian particle filter using distributed controller scheme," *Proceedings of ICSP*, Istanbul, Turkey, 2004.
196. S. Hong, X. Liang, and P. M. Djurić, "Reconfigurable particle filter design using dataflow structure translation," *Proceedings of the IEEE Workshop on Signal Processing Systems*, Austin, TX, 2004.
197. K. De Cock, X. Zhang, M. F. Bugallo, and P. M. Djurić, "Stochastic simulation and parameter estimation of first order chemical reactions," *Proceedings of the European Signal Processing Conference*, Vienna, Austria, 2004.
198. M. Bolić, A. Athalye, S. Hong, and P. M. Djurić, "Algorithmic modification of particle filters for hardware implementation," *Proceedings of the European Signal Processing Conference*, Vienna, Austria, 2004.
199. P. M. Djurić, M. Vemula, and M. F. Bugallo, "Signal processing by particle filtering for binary sensor networks," *11th Digital Signal Processing Workshop and 3rd Signal Processing Education Workshop*, Taos Ski Valley, NM, 2004.
200. A. Athalye, M. Bolić, S. Hong, and P. M. Djurić, "Architectures and memory schemes for sampling and resampling in particle filters," *11th Digital Signal Processing Workshop and 3rd Signal Processing Education Workshop*, Taos Ski Valley, NM, 2004.

201. P. M. Djurić, M. F. Bugallo, and J. Míguez, "Density assisted particle filters for state and parameter estimation," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Montreal, Canada, 2004.
202. M. F. Bugallo, S. Xu, J. Míguez, and P. M. Djurić, "Maneuvering target tracking using cost reference particle filtering," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Montreal, Canada, 2004.
203. T. Ghirmai, J. Míguez, M. F. Bugallo, P. M. Djurić, "A particle filter for blind timing recovery and data detection in fast fading wireless channels," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Montreal, Canada, 2004.
204. J. Míguez, S. Xu, M. F. Bugallo, P. M. Djurić, "A novel particle filtering approach and its application to target tracking," *Proceedings of the IEEE Aerospace Conference*, Big Sky, MT, 2004.
205. S. Hong, M. Bolić, and P. M. Djurić, "Design complexity comparison method for loop-based signal processing algorithms: particle filters," *Proceedings of the IEEE International Symposium on Circuits and Systems*, Vancouver, Canada, 2004.
206. Y. Huang, P. M. Djurić, and J. Zhang, "Joint velocity estimation and symbol detection in non-stationary fading channels by particle filtering," *Proceedings of GLOBECOM*, San Francisco, CA, 2003.
207. T. Ghirmai, M. F. Bugallo, J. Míguez, P. M. Djurić, "A novel particle filtering approach to blind symbol detection and timing estimation," *Proceedings of the IEEE Vehicular Technology Conference*, Orlando, FL, 2003.
208. J. Míguez, S. Xu, M. F. Bugallo, P. M. Djurić, "Particle filtering for systems with unknown noise probability distributions," *Proceedings of the IEEE SP Workshop on Statistical Signal Processing*, St. Louis, MO, 2003.
209. X. Zhang, K. De Cock, M. F. Bugallo, P. M. Djurić, "Stochastic simulation and parameter estimation of enzyme reaction models," *Proceedings of the IEEE SP Workshop on Statistical Signal Processing*, St. Louis, MO, 2003.
210. J. Míguez, T. Ghirmai, M. F. Bugallo, and P. M. Djurić, "Blind symbol detection and reference parameters estimation using the sequential Monte Carlo methodology," *Proceedings of the 6th Baiona Workshop on Signal Processing in Communications*, Baiona, Spain, 2003.
211. T. Ghirmai, P. M. Djurić, M. F. Bugallo, J. Kotecha, "A sequential Monte Carlo algorithm for blind timing recovery and data detection," *Proceedings of the Workshop on Signal Processing Advances in Wireless Communications*, Rome, Italy, 2003.
212. J. Míguez, M. F. Bugallo, and P. M. Djurić, "Multisample receivers for time-varying channels using particle filtering," *Proceedings of the Workshop on Signal Processing Advances in Wireless Communications*, Rome, Italy, 2003.
213. M. Bolić, Petar M. Djurić, and Sangjin Hong, "Resampling algorithms for particle filters suitable for parallel VLSI implementation," *Proceedings of the Conference on Information Sciences and Systems*, The Johns Hopkins University, 2003.
214. T. Ghirmai, M. F. Bugallo, P. M. Djurić, and J. Míguez, "Particle filtering based estimation of reference parameters in flat-fading environments," *Proceedings of the Conference on Information Sciences and Systems*, The Johns Hopkins University, 2003.
215. A. Athalye, S. Hong, and P. M. Djurić, "Effects of VLSI noise generators on performance and complexity of real-time particle filters," *Proceedings of the Conference on Information Sciences and Systems*, The Johns Hopkins University, 2003.
216. M. Bolić, P. M. Djurić, and S. Hong, "New resampling algorithms for particle filters," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Hong Kong, 2003.

217. T. Ghirmai, M. F. Bugallo, J. Míguez, and P. M. Djurić, "Joint symbol detection and timing estimation using particle filtering," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Hong Kong, 2003.
218. D. Bonacci, C. Mailhes, and P. M. Djurić, "Improving frequency resolution for correlation-based spectral estimation methods using subband decomposition," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Hong Kong, 2003.
219. Y. Huang, J. Zhang, and P.M. Djurić, "Detection with particle filtering in BLAST systems," *Proceedings of the IEEE International Conference on Communications*, Anchorage, Alaska, 2003.
220. M. Bolić, S. Hong, and P. M. Djurić, "Finite precision effect on performance and complexity of particle filters for bearing-only tracking," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2002.
221. M. Bolić, S. Hong, and P. M. Djurić, "Performance and complexity analysis of adaptive particle filtering for tracking applications," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2002.
222. P. M. Djurić, J. Zhang, T. Ghirmai, Y. Huang and J. H. Kotecha, "Applications of particle filtering to communications; A review," *Proceedings of the European Signal Processing Conference*, vol. II, pp. 169-172, Toulouse, France, 2002.
223. Y. Huang and P. M. Djurić, "A blind particle filtering detector for joint channel estimation, tracking and data detection over flat fading channels," *Proceedings of the European Signal Processing Conference*, vol. III, pp. 331-334, Toulouse, France, 2002.
224. J. Zhang, Y. Huang, and P. M. Djurić, "Multiuser detection with particle filtering," *Proceedings of the European Signal Processing Conference*, vol. II, pp. 307-310, Toulouse, France, 2002.
225. P. M. Djurić and J. Míguez, "Sequential particle filtering in the presence of additive Gaussian noise with unknown parameters," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Orlando, FL, 2002.
226. Y. Huang and P. M. Djurić, "A new importance function for particle filtering and its application to blind detection in flat fading channels," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Orlando, FL, 2002.
227. J. Kotecha and P. M. Djurić, "Sequential detectors for nonlinear channels with applications to satellite communications," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Orlando, FL, 2002.
228. J. Míguez and P. M. Djurić, "Equalization by sequential importance sampling," *Proceedings of the IEEE International Symposium on Circuits and Systems*, Phoenix, AZ, 2002.
229. J. Zhang, Y. Huang, and P. M. Djurić, "Joint channel estimation and decoding of space-time trellis codes," *Proceedings of Conference on Information Sciences and Systems*, Princeton, NJ, 2002.
230. J. Zhang, Y. Huang, and P. M. Djurić, "Joint Channel Estimation and Multiuser Detection using Particle Filtering," *Proceedings of Conference on Information Sciences and Systems*, Princeton, NJ, 2002.
231. T. Ghirmai, J. Kotecha, and P. M. Djurić, "Joint channel estimation and data detection over frequency selective fading channel using sequential Monte Carlo filtering," *Proceedings of Conference on Information Sciences and Systems*, Princeton, NJ, 2002.

232. L. Li, D. Chen, S. Lakare, K. Kreeger, I. Bitter, A. E. Kaufman, M. R. Wax, P. M. Djurić, and Z. Liang, "An image segmentation approach to extract colon lumen through colonic material tagging and hidden Markov random field model for virtual colonoscopy," *Proceedings of the International Society for Magnetic Resonance in Medicine*, 10th Scientific Meeting, Honolulu, HI, 2002.
233. P. M. Djurić, "Applications of Monte Carlo particle filters in signal processing," Proceedings of the International Statistical Institute, Seoul, South Korea, 2001.
234. J. Zhang and P. M. Djurić, "Joint channel estimation and decoding of space-time trellis codes," *Proceedings of the IEEE SP Workshop on Statistical Signal Processing*, Singapore, 2001.
235. Y. Huang, T. Ghirmai, and P. M. Djurić, "The rejection Gibbs coupler: a perfect sampling algorithm and its application to truncated multivariate Gaussian distributions," *Proceedings of the IEEE SP Workshop on Statistical Signal Processing*, Singapore, 2001.
236. J. Kotecha and P. M. Djurić, "Gaussian particle filtering," *Proceedings of the IEEE SP Workshop on Statistical Signal Processing*, Singapore, 2001.
237. P. M. Djurić, J. Kotecha, J.-Y. Tournet, and S. Lésage, "Adaptive signal processing by particle filters and discounting of old measurements," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Salt Lake City, UT, 2001.
238. Y. Huang and P. M. Djurić, "Multiuser detection of synchronous CDMA signals by the Gibbs coupler," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Salt Lake City, UT, 2001.
239. J. Kotecha and P. M. Djurić, "Gaussian sum particle filtering for dynamic state space models," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Salt Lake City, UT, 2001.
240. C.-C. Lin and P. M. Djurić, "Bayesian estimation of chirplet signals by MCMC sampling," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Salt Lake City, UT, 2001.
241. P. Michel, J.-Y. Tournet, and P. M. Djurić, "On-line model selection of nonstationary time series using Gerschgorin disks," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Salt Lake City, UT, 2001.
242. S. Lésage, J.-Y. Tournet, and P. M. Djurić, "Classification of digital modulations by MCMC sampling" *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Salt Lake City, UT, 2001.
243. P. M. Djurić and J. Kotecha, "Estimation of non-Gaussian autoregressive processes by particle filters with forgetting factors," *Proceedings of the Nonlinear Signal and Image Processing Conference*, Baltimore, MD, 2001.
244. C.-C. Lin and P. M. Djurić, "Estimation of chirplets by the reversible jump MCMC sampling," *Proceedings of the Nonlinear Signal and Image Processing Conference*, Baltimore, MD, 2001.
245. J. Kotecha and P. M. Djurić, "Gaussian sum particle filtering detector for impulsive fading channels," *Proceedings of the Nonlinear Signal and Image Processing Conference*, Baltimore, MD, 2001.
246. Y. Huang and P. M. Djurić, "Variable selection by perfect sampling," *Proceedings of the Nonlinear Signal and Image Processing Conference*, Baltimore, MD, 2001.
247. D. An, K. W. Tang, and P. M. Djurić, "Performance comparison of BNN and MPNN on Proben1 database," *Proceedings of the International Conference on Computers and Their Applications*, Seattle, WA, 2001.

248. P. M. Djurić, "Sequential estimation of random parameters under model uncertainty," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Istanbul, Turkey, 2000.
249. C.-C. Lin and P. M. Djurić, "Estimation of chirp signals by MCMC," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Istanbul, Turkey, 2000.
250. Y. Huang and P. M. Djurić, "Bayesian detection of transient signals in colored noise," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Istanbul, Turkey, 2000.
251. J. Kotecha and P. M. Djurić, "Sequential Monte Carlo detector for Rayleigh fast-fading," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Istanbul, Turkey, 2000.
252. P. M. Djurić, "Sequential estimation of probability of events," *Proceedings of the European Signal Processing Conference*, Tampere, Finland, 2000.
253. J. Kotecha and P. M. Djurić, "Monte Carlo sampling methods for adaptive channel estimation and detection over a Rayleigh fading channel," *Proceedings of the European Signal Processing Conference*, Tampere, Finland, 2000.
254. Y. Huang and P. M. Djurić, "Choosing priors for an important class of signal processing problems," *Proceedings of the European Signal Processing Conference*, Tampere, Finland, 2000.
255. P. M. Djurić and J.-H. Chun, "Estimation of nonstationary hidden Markov models by MCMC sampling," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Phoenix, AZ, 1999.
256. J. Kotecha, and P. M. Djurić, "Gibbs sampling approach for generation of truncated multivariate Gaussian random variables," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Phoenix, AZ, 1999.
257. P. M. Djurić, "Monitoring and selection of dynamic models by Monte Carlo sampling," *Proceedings of the IEEE SP Workshop on High Order Statistics*, pp. 191-194, Caesarea, Israel, 1999.
258. Y. Huang and P. M. Djurić, "A Bayesian approach to direction-of-arrival estimation of coherent signals," *Proceedings of the IEEE SP Workshop on High Order Statistics*, pp. 371-374, Caesarea, Israel, 1999.
259. J.-L. Pan, S. S. Rappaport, and P. M. Djurić, "A multibeam medium access scheme for multiple services in wireless cellular communications," *Proceedings of ICC*, Vancouver, 1999.
260. P. M. Djurić and Y. Huang, "Estimation of probability of events from imperfect Bernoulli trials," *Proceedings of the SPIE International Symposium on Mathematical Modeling, Bayesian Estimation, and Inverse Problems*, vol. 3816, pp. 68-76, Denver, CO, 1999.
261. P. M. Djurić, "The use of bootstrap in computer-intensive Bayesian methods," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, vol 1, pp. 3-7, Asilomar, CA 1999.
262. P. M. Djurić, S. J. Godsill, W. J. Fitzgerald, and P. J. W. Rayner, "Detection and estimation of signals by reversible jump Markov chain Monte Carlo computations," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Seattle, WA, 1998.
263. P. M. Djurić, "Variable selection by a reversible jump MCMC approach," *Proceedings of the European Signal Processing Conference*, vol. 4, pp. 2013-2016, Rhodes, Greece, 1998.
264. P. M. Djurić, S. J. Godsill, "Parametric modeling and estimation of time varying spectra," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, vol 1., pp. 292-296, Asilomar, CA 1998.

265. P. M. Djurić, "A reversible jump algorithm for analysis of Gamma mixtures," *Proceedings of the SPIE International Symposium, Bayesian Inference for Inverse Problems*, vol. 3459, pp. 262-270, San Diego, CA, 1998.
266. J.-L. Pan, S. S. Rappaport, and P. M. Djurić, "Multibeam cellular communication systems with dynamic channel assignment across multiple sectors," *Proceedings of CISS '98*, Princeton, NJ, 1998.
267. J.-L. Pan, P. M. Djurić, and S. S. Rappaport, "Multibeam cellular communication systems with dynamic channel assignment," *Proceedings of the IEEE Vehicular Technology Conference*, vol. 3, pp. 2140-2144, Ottawa, Canada, 1998.
268. P. M. Djurić, "Using the bootstrap to select models," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, vol. 5, pp. 3729-3732, Munich, Germany, 1997.
269. J.-K. Fwu and P. M. Djurić, "Cluster validation for image segmentation," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, vol. 4, pp. 3149-3152, Munich, Germany, 1997.
270. E. R. Beadle and P. M. Djurić, "Bayesian parameter estimation of autoregressive mixture processes using Gibbs sampling," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, vol. 5, pp. 3557-3560, Munich, Germany, 1997.
271. P. M. Djurić and M. Guo, "A novel approach to multiuser detection for CDMA systems," *Proceedings of the IEEE Vehicular Technology Conference*, vol. 2, pp. 563-566, Phoenix, AZ, 1997.
272. P. M. Djurić, J.-K. Fwu, S. Jovanović, and K. Lynn, "On the processing of piecewise-constant signals by hierarchical models with application to single ion channel currents," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, vol. 5, pp. 2762-2765, Atlanta, GA, 1996.
273. J.-K. Fwu and P.M. Djurić, "Unsupervised vector image segmentation by the ICM method," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, vol. 4, pp. 2235-2238, Atlanta, GA, 1996.
274. H.-T. Li and P.M. Djurić, "MMSE parameter estimation of multiple chirp signals," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, vol. 5, pp. 2606-2609, Atlanta, GA, 1996.
275. J.-L. Pan, P.M. Djurić, and S. R. Rappaport, "A simulation model of combined handoff initiation and channel availability in cellular communications," *Proceedings of the IEEE Vehicular Technology Conference*, vol. 3, pp. 1515-1519, Atlanta, GA, 1996.
276. M. M. Begović and P. M. Djurić, "Power system disturbance monitoring using spectral analysis," *Proceedings of the IEEE International Symposium on Circuits and Systems*, Atlanta, GA, 1996.
277. H.-T. Li and P.M. Djurić, "An iterative procedure for joint Bayesian spectrum and parameter estimation of harmonic signals," *Proceedings of the IEEE International Symposium on Circuits and Systems*, Atlanta, GA, 1996.
278. P. M. Djurić, "A novel approach to rank determination of covariance matrices," *Proceedings of the IEEE SP Workshop on Statistical Signal and Array Processing*, pp. 40-43, Corfu, Greece, 1996.
279. J.-K. Fwu and P. M. Djurić, "Automatic segmentation of piecewise constant signal by hidden Markov models," *Proceedings of the IEEE SP Workshop on Statistical Signal and Array Processing*, pp. 283-286, Corfu, Greece, 1996.
280. E. Beadle and P. M. Djurić, "Parameter estimation for non-Gaussian autoregressive processes," *Proceedings of the Conference on Information Sciences and Systems*, Princeton, NJ, 1996.
281. P. M. Djurić, "A Bayesian model order determination rule for harmonic signals," *Proceedings of the IEEE International Symposium on Circuits and Systems*, pp. 2273-2276, Seattle, WA, 1995.

282. W. B. Bishop and P. M. Djurić, "A joint order selection criterion for multiple sinusoids in autoregressive noise by asymptotic Bayesian statistics," *Proceedings of the Third World Meeting of the International Society For Bayesian Analysis*, Oaxaca, Mexico, 1995.
283. H.-T. Li and P. M. Djurić, "A novel approach to detection of closely spaced sinusoids," *Proceedings of the IEEE International Symposium on Circuits and Systems*, pp. 2289-2292, Seattle, WA, 1995.
284. W. B. Bishop and P. M. Djurić, "Model order selection of damped sinusoids by predictive densities," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, pp. 1621-1624, Detroit, MI, 1995.
285. P. M. Djurić and J. Fwu, "Boundary detection in noisy vector fields," *Proceedings of the SPIE Conference on Medical Imaging*, pp. 730-741, San Diego, CA, 1995.
286. P. M. Djurić, "A MAP solution to off-line segmentation of signals," *Proceedings of the IEEE International Conference on Acoustics Speech and Signal Processing*, vol. V, pp. 505-508, Adelaide, Australia, 1994.
287. D. E. Johnston and P. M. Djurić, "An efficient Bayes solution to AR signal modeling for short sequences," *Proceedings of the IEEE International Conference on Acoustics Speech and Signal Processing*, vol. IV, pp. 345-348, Adelaide, Australia, 1994.
288. C.-M. Cho and P. M. Djurić, "Detection and estimation of multiple cisoids in colored noise by Bayesian predictive densities," *Proceedings of the IEEE International Conference on Acoustics Speech and Signal Processing*, vol. IV, pp. 501-504, Adelaide, Australia, 1994.
289. P. M. Djurić, "Model selection based on asymptotic Bayes theory," *Proceedings of the IEEE SP Workshop on Statistical Signal and Array Processing*, pp. 7-10, Quebec City, Canada, 1994.
290. W. B. Bishop, P. M. Djurić, and D. E. Johnston, "Model selection and parameter estimation of exponential time series through adaptive importance sampling," *Proceedings of the IEEE SP Workshop on Statistical Signal and Array Processing*, pp. 51-54, Quebec City, Canada, 1994.
291. P. M. Djurić, W. B. Bishop, and D. E. Johnston, "A Bayesian procedure for the detection of damped signals," *Proceedings of the IEEE International Symposium on Circuits and Systems*, vol. 2, pp. 401-404, London, England, 1994.
292. D. E. Johnston and P. M. Djurić, "Bayesian detection and MMSE frequency estimation of sinusoidal signals via adaptive importance sampling," *Proceedings of the IEEE International Symposium on Circuits and Systems*, vol. 2, pp. 417-420, London, England, 1994.
293. P. M. Djurić, "Simultaneous detection and frequency estimation of sinusoidal signals," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, vol. IV, pp. 53-56, Minneapolis, MN, 1993.
294. C.-M. Cho and P. M. Djurić, "Detection and localization of multiple sources via Bayesian predictive densities," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, vol. IV, pp. 57-60, Minneapolis, MN, 1993.
295. P. M. Djurić and C.-M. Cho, "Frequency estimation of sinusoids in colored Gaussian noise," *Proceedings of the IEEE International Symposium on Circuits and Systems*, vol. I, pp. 439-442, Chicago, IL, 1993.
296. D. E. Johnston and P. M. Djurić, "On the frequency estimation of sinusoidal signals in Known and Unknown Gaussian Noise using Bayesian Approach," regular paper, *Proceedings of the Conference on Information Sciences and Systems*, pp. 639-644, Baltimore, MD, 1993.
297. P. M. Djurić, S. M. Kay, and G. F. Boudreaux-Bartels, "Segmentation of nonstationary signals," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, vol. V, pp. 161 – 164, San Francisco, CA, 1992.

298. P. M. Djurić and M. M. Begović, "Adaptive estimation of frequency in power networks," *Proceedings of the IEEE International Symposium on Circuits and Systems*, pp. 2372-2375, San Diego, CA, 1992.
299. M. Doroslovački, H. Fan, and P. M. Djurić, "Time-frequency localization for sequences," *Proceedings of the IEEE-SP International Symposium on Time-Frequency and Time-Scale Analysis*, pp. 159-162, Victoria, Canada, 1992.
300. P. M. Djurić, M. M. Begović, and M. Doroslovački, "Instantaneous phase tracking in power networks by demodulation" *Proceedings of the IEEE Instrumentation and Measurement Technology Conference*, pp. 314-319, New York, 1992.
301. P. M. Djurić and M. Doroslovački, "On model selection by quasi-Bayesian predictive densities," *Proceedings of the IEEE International Symposium on Circuits and Systems*, pp. 2741-2744, San Diego, CA, 1992.
302. M. M. Begović, P. M. Djurić, S. Dunlap, and A. G. Phadke, "Frequency tracking in power networks in the presence of harmonics," *Proceedings of the IEEE International Conference on Harmonics in Power Systems V*, Atlanta, GA 1992.
303. M. Doroslovački, H. Fan, and P. M. Djurić, "Wavelets and linear system modeling," *Proceedings of the 26-th Annual Conference on Information Sciences and Systems at Princeton*, 1992.
304. S. Jovanović and P. M. Djurić, "On the classification of the multilevel phase shift keying signals," *Proceedings of the European Signal Processing Conference*, Brussels, Belgium, 1992.
305. P. M. Djurić and S. M. Kay, "Model order estimation of 2D autoregressive processes," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, pp. 3405-3408, Toronto, Canada, 1991.
306. P. M. Djurić and G. F. Boudreaux-Bartels, "Detection of changes in the parameters of a special class of FM signals," *Proceedings of the Third Biennial IEEE Mini Conference on Acoustics, Speech, and Signal Processing*, pp. S4.1-S4.2, Boston, MA, 1991.
307. P. M. Djurić and S. Kay, "Predictive probability as a criterion for model selection," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, pp. 2415-2418, Albuquerque, New Mexico, 1990.
308. P. M. Djurić, "Model selection by cross-validation," *Proceedings of the IEEE International Symposium on Circuits and Systems*, pp. 2760-2763, New Orleans, Louisiana, 1990.
309. P. M. Djurić and A. Zavaljevski, "On the selection of a complex linear regression model," *Proceedings of the European Signal Processing Conference*, pp. 385-388, Barcelona, Spain, 1990.
310. P. M. Djurić and S. Kay, "A simple frequency rate estimator," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, pp. 2254-2257, Glasgow, Scotland, 1989.
311. S. M. Kay, L. B. Jackson, J. Huang, and P. M. Djurić, "An approximate maximum likelihood ARMA estimation based on the power cepstrum," *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, pp. 2344-2347, New York, 1988.

### **1.7. Papers in proceedings of domestic conferences (M63)**

1. P. M. Djurić, M. Doroslovački, and S. Jovanović, "Discrete complex white noise," *Proceedings of the Yugoslav Conference ETAN*, Herceg-Novi, 1986.
2. S. Jovanović, P. M. Djurić, and M. Doroslovački, "Symbol rate estimator of synchronous M-FSK signals," *Proceedings of the Yugoslav Conference ETAN*, Herceg-Novi, 1986.
3. M. Aleksić, P. M. Djurić, and A. Zavaljevski, "Radio source azimuth estimation by the maximum likelihood method", *Proceedings of the Yugoslav Conference ETAN*, Herceg-Novi, 1986.

4. A. Zavaljevski, G. Živanović, M. Doroslovački, P. M. Djurić, and M. Aleksić, “Binary Signal Receiver Realization on the TMS320 Signal Processor,” *Proceedings of the Conference on Informatics - Jahorina*, Sarajevo, 1985.
5. M. Aleksić, P. M. Djurić, A. Zavaljevski, and S. Jovanović, “An algorithm for processing demodulated telegraph signals,” *Proceedings of the Yugoslav Conference ETAN*, Split, 1984.
6. G. Živanović and P. M. Djurić, “A statistical-structural approach to pattern recognition of a certain class of problems,” *Proceedings of the Yugoslav Conference ETAN*, Split, 1984.
7. P. M. Djurić and M. Aleksić, “Microprocessor realization of a digital receiver,” *Proceedings of the Conference on Informatics - Jahorina*, Sarajevo, 1984.
8. P. M. Djurić, “Estimation of the parameters of the ARMA model using autocorrelations and inverse autocorrelations,” *Proceedings of IASTED*, Innsbruck, Austria, 1984.
9. P. M. Djurić, “An approach to ARMA parameter estimation,” *Proceedings of the Yugoslav Conference ETAN*, Struga, 1983.
10. M. Dragošević, A. Zavaljevski, G. Živanović, and P. M. Djurić, “Interactive software for digital signal processing,” *Proceedings of the Conference on Informatics - Jahorina*, Sarajevo, 1982.

### **1.8 Masters thesis (M71)**

1. “Frequency estimation of sinusoids in noise by spectral methods with high resolutions,” School of Electrical Engineering, Belgrade, 1986.

### **1.9. PhD thesis (M72)**

1. “Selection of signal and system models by Bayesian predictive densities,” Department of Electrical Engineering, University of Rhode Island, 1990.

### **1.10. Patents (M91)**

1. P. M. Djurić and A. Athalye, “RFID system and method for localizing and tracking a moving object with an RFID tag,” Patent US7812719 B2, Approved on: 2010-06-24; Application date, 2007.

## **2. RESEARCH PROJECTS**

### **2.1. Current and recent projects**

1. “In search for the interactions that create consciousness,” National Science Foundation 2020 – 2025
2. “Rethinking electronic fetal monitoring to improve perinatal outcomes and reduce frequency of operative vaginal and Cesarean deliveries,” National Institutes of Health 2019 – 2024
3. “RF-based analytics with intelligent backscattering in passive tag-to-tag networks,” National Science Foundation 2019 – 2023

4. "Passive network of tags for smart spaces," National Science Foundation 2018 – 2022
5. "Bringing spectrum sensing to the masses," National Science Foundation 2016 – 2020
6. "Dynamic networks: Learning, inference, and prediction with nonparametric Bayesian methods," National Science Foundation 2016 – 2019
7. "SpecSense: Bringing spectrum to the masses," National Science Foundation 2016 – 2020
8. "Machine learning with generative mixture models for fetal monitoring," National Institutes of Health 2015 – 2018
9. "RIBBN - A research infrastructure for backscatter-based networks," National Science Foundation 2014 – 2017
10. "Belief evolution in networks of Bayesian agents," National Science Foundation 2013 – 2017

### **3. OTHER INDICATORS OF SUCCESS**

#### **3.1. International awards**

1. Fellow of the European Association for Signal Processing 2016  
*"For contributions to the theory and practice of Bayesian signal processing"*
2. Technical Achievement Award, European Association for Signal Processing 2012  
*For contributions to the theory and application of Monte Carlo-based methods to signal processing*
3. Chair of Excellence of Universidad Carlos III de Madrid-Banco de Santander 2008-2009
4. IEEE Signal Processing Magazine Best Paper Award 2007  
*"Particle filtering," IEEE Signal Processing Magazine, vol. 20(5), pp. 19-38, 2003.*
5. Fellow of the IEEE 2006  
*For contributions to Monte Carlo – based methods for signal processing*
6. IEEE Region 1 Award for New Technical Concepts in Electrical Engineering 1996  
*For application of Bayesian statistical modeling to engineering problems*

#### **3.2. Other awards**

1. A large number of research grants from National Science Foundation, National Institutes of Health, and Office of Naval Research 1991-present
2. A number of research grants from industry 1991-present
3. Merit Award for Teaching and Curriculum Development, SUNY SB 1995
4. Recipient of the National Science Foundation Research Initiation Award 1991

#### **3.3. Editorships and Editorial Boards**

1. Senior Editor of the IEEE Open Journal of Signal Processing (OJSP) 2019-present
2. Editor-in-Chief of the IEEE Transactions on Signal and Information Processing over Networks 2015–2018

3. Guest Editor of a special issue on *Network Localization* for the EURASIP Journal on Advances in Signal Processing 2017–2018
4. Guest Editor of a special issue on “Indoor localization, tracking, and mapping with heterogeneous technologies” for the *IEEE Transactions on Vehicular Technology* 2015
5. Member of the Editorial Board of the *EURASIP Research Letters in Signal Processing* 2007-present
6. Member of the Editorial Board of the *IEEE Journal on Special Topics in Signal Processing* 2006-2009
7. Member of the Editorial Board of the *EURASIP Journal on Wireless Communications and Networking* 2003-present
8. Member of the Editorial Board of *Digital Signal Processing*, ELSEVIER 2001-2010
9. Member of the Editorial Board of the *EURASIP Journal on Applied Signal Processing* 2002-2007
10. Member of the Editorial Board of the *IEEE Signal Processing Magazine* 2005-2007
11. Associate Editor, *IEEE Transactions on Signal Processing* 2003-2005
12. Area Editor - Special Issues, *IEEE Signal Processing Magazine* 2002-2005
13. Member of the Editorial Board of the *IEEE Transactions on Signal Processing* 2002-2005
14. Guest Editor, Special issue on “Particle filtering in signal processing,” *EURASIP Journal on Applied Signal Processing* 2004
15. Guest Editor, Special issue on Monte Carlo methods for statistical signal processing,” *IEEE Transactions on Signal Processing* 2002
16. Associate Editor, *IEEE Transactions on Signal Processing* 1994-1996

### 3.4. Plenary talks

1. ICC, Workshop on Advances in Network Localization and Navigation, Kansas, MO 2018
2. Symposium on Neural Networks and Applications, Belgrade, Serbia 2018
3. European Conference European Signal Processing Conference, Budapest, Hungary 2016
4. Plenary speaker, IEEE Workshop on Statistical Signal Processing, Palma de Mallorca, Spain 2016
5. Plenary speaker, ICSPCC, Guilin, China 2014
6. Symposium on Neural Networks and Applications, Belgrade, Serbia 2010
7. IEEE Workshop on Machine Learning for Signal Processing, Sao Luis, Brazil 2004
8. XVIII Simposium Nacional de la Unión Científica Internacional de Radio, La Coruña, Sppain 2003

### 3.5. Membership of editorial boards

1. Member of the Publication Board of the IEEE Signal Processing Society 2015–2018
2. Member of the Editorial Board of the *EURASIP Research Letters in Signal Processing* 2007-2015
3. Member of the Editorial Board of the *IEEE Journal on Special Topics in Signal Processing* 2006-2009

4. Member of the Editorial Board of the *EURASIP Journal on Wireless Communications and Networking* 2003-present
5. Member of the Editorial Board of *Digital Signal Processing*, ELSEVIER 2001-2010
6. Member of the Editorial Board of the *EURASIP Journal on Applied Signal Processing* 2002-2007
7. Member of the Publication Board of the IEEE Signal Processing Society 2006–2009
8. Member of the Editorial Board of the *IEEE Signal Processing Magazine* 2005-2007
9. Member of the Editorial Board of the *IEEE Transactions on Signal Processing* 2002-2005

### 3.6. Members of various professional committees

1. Member of IEEE Jack S. Kilby Signal Processing Medal Committee 2019-present
2. EURASIP Fellows Selection Committee 2019-present
3. Member of the Big Data Special Interest Group of the IEEE Signal Processing Society 2014–2019
4. Member of the IEEE Signal Processing Society Nominations and Appointments Committee 2014 – 2015
5. Treasurer of the *IEEE International Conference on Acoustics, Speech, and Signal Processing*, Florence, Italy 2014
6. Member of the Awards Committee of the European Network of Excellence 2013-2016
7. Member-at-Large of the Board of Governors of the IEEE Signal Processing Society 2011-2013
8. Member of the IEEE Signal Processing Nominations and Appointments Committee 2010
9. IEEE Signal Processing Society Vice President-Finance 2006-2009
10. Chair of the *Technical Committee on Signal Processing – Theory and Methods*,  
*IEEE Signal Processing Society* 2004-2005
11. Vice Chair of the *Technical Committee on Signal Processing – Theory and Methods*,  
*IEEE Signal Processing Society* 2002-2003
12. Treasurer of the IEEE Signal Processing Conference Board 2001-2003
13. Member, *Technical Committee on Signal Processing – Theory and Methods*,  
*IEEE Signal Processing Society* 1996-2006
14. Member, International Advisory Board, *International Conference on Information, Communications, and Signal Processing*,  
Singapore 2001

### 3.7 Invited lectures

1. Rice University, TX 2020
2. University of South Florida, FL 2020
3. European Meeting of Statisticians, Palermo, Italy 2019
4. University of Rochester, NY 2019
5. IMS Health, Plymouth Meeting, PA 2017

6. Syracuse University, NY	2016
7. IEEE Summer School in Signal Processing, Barcelona, Spain	2015
8. Uppsala University, Sweden	2015
9. Florida Atlantic University, Boca Raton	2014
10. Tutorial at EUSIPCO, Bucharest, Romania	2012
11. Vienna University of Technology, Vienna, Austria	2012
12. University of Seville, Seville, Spain	2011
13. Long Island Forum for Technology, Bethpage, NY	2011
14. University of Pireaus, Greece	2010
15. University of Ottawa, Ottawa, Canada	2009
16. University of British Columbia, Vancouver, Canada	2009
17. University of Ames, IA	2009
18. IEEE Chapter, Madison, WI	2009
19. IEEE Chapter, Rochester, MN	2009
20. DeVry University, Denver, CO	2009
21. Institute of Technology, Buenos Aires, Argentina	2009
22. University of Minnesota, Minneapolis, MN	2009
23. Drexel University, Philadelphia, PA	2009
24. Universidad Politécnica de Madrid, Madrid, Spain	2008
25. Universidad Carlos III, Madrid, Spain	2008
26. University of Belgrade, Serbia	2008
27. The Monash University, Kuala Lumpur, Malaysia	2008
28. Nanyang Technological University, Singapore	2008
29. The Chinese University of Hong Kong, Hong Kong	2008
30. Northwestern Polytechnical University, Xi'an, China	2008
31. University of Chicago, Chicago, IL	2008
32. University of Maryland, College Park, MD	2008
33. Linköping University, Sweden	2008
34. University of Connecticut, Storrs, CT	2007
35. Brookhaven National Laboratory, NY	2007

36. Naval Postgraduate School (tribute to Fred Daum), Monterey, CA	2007
37. Ecole National Supérieure de Télécommunication, Paris, France	2006
38. Nonlinear Statistical Signal Processing Workshop, Cambridge, UK	2006
39. ARO-MURI Workshop on “Adaptive Sensing and Waveform Design,” Georgia Tech, Atlanta, GA	2005
40. Universidade Carlos III de Madrid, Madrid, Spain	2005
41. European Signal Processing Conference, Vienna, Austria	2004
42. Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil	2004
43. Instituto Tecnológico de Aeronáutica, São José dos Campos, Brazil	2004
44. ENSEEIHT, Toulouse, France	2002
45. Universidade da Coruña, La Coruña, Spain	2002
46. Tutorial at ICASSP 2002, Orlando, FL	2002
47. Drexel University, Philadelphia, PA	2002
48. Uppsala University, Uppsala, Sweden	2001
49. 53 <sup>rd</sup> Session of the International Statistical Institute, Seoul, South Korea	2001
50. State University of New York, Buffalo	1999
51. New Jersey Institute of Technology, Newark, NJ	1999
52. Isaac Newton Institute for Mathematical Sciences, Cambridge, UK	1998
53. University of George Washington, Washington, DC	1998
54. University of Westminster, London, UK	1997
55. University of Cambridge, Cambridge, UK	1997
56. University of Rhode Island, Kingston, RI	1997
57. Northwestern Polytechnical University, Xi’an, China	199

### **3.8. Reviewer**

1. Reviewer, *Belgian Research Council*
2. Reviewer, *Canadian Research Council*
3. Reviewer, *Digital Signal Processing*
4. Reviewer, *EURASIP Journal on Advances in Signal Processing*
5. Reviewer, *EURASIP Journal on Wireless Communications and Networking*
6. Reviewer, *European Commission*
7. Reviewer, *Frontiers in Pediatrics*

8. Reviewer, *IEEE Transactions on Signal Processing*
9. Reviewer, *IEEE Signal Processing Magazine*
10. Reviewer, *IEEE Journal of Selected Topics in Signal Processing*
11. Reviewer, *IEEE Signal Processing Letters*
12. Reviewer, *IEEE Communications Letters*
13. Reviewer, *IEEE Transactions on Pattern Analysis and Machine Intelligence*
14. Reviewer, *IEEE Transactions on Aerospace and Electronic Systems*
15. Reviewer, *IEEE Transactions on Circuits and Systems*
16. Reviewer, *IEEE Transactions on Medical Imaging*
17. Reviewer, *IEEE Transactions on Communications*
18. Reviewer, *IET System Biology*
19. Reviewer, *International Journal of Adaptive Control and Signal Processing*
20. Reviewer, *Israeli Science Foundation*
21. Reviewer, *Multidimensional Systems and Signal Processing*
22. Reviewer, *National Academy*
23. Reviewer, *National Science Foundation*
24. Reviewer, *Journal of the American Statistical Association*
25. Reviewer, *Journal on Bayesian Analysis*
26. Reviewer, *Nature and Methods*
27. Reviewer, *Signal Processing*
28. Reviewer, *Springer Journal on Medical & Biological Engineering & Computing*
29. Reviewer, *Journal of Statistical Planning and Inference*
30. Member, *IEEE Signal Processing Society*
31. Member, *American Statistical Association*
32. Member, *The International Society for Bayesian Analysis*

#### **4. CONTRIBUTIONS TO R&D**

##### **4.1. Mentor of PhD students**

1. Chao-Ming Cho - graduated in 1993

Dissertation: “Bayesian detection and estimation of superimposed signals by a subspace approach”

2. Douglas E. Johnston - graduated in 1994  
Dissertation: "A Bayesian approach to signal modeling and estimation"
3. Hsiang-Tsun Li – graduated in 1996  
Dissertation: "Bayesian parameter and spectral estimation"
4. William B. Bishop – graduated in 1996  
Dissertation: "Probabilistic analysis of transient signals by the Bayesian maximum a posteriori criterion"
5. Jong-Kae Fwu – graduated in 1996  
Dissertation: "Markov random field model based automatic segmentation of vector images"
6. Edward Beadle – graduated in 1996  
Dissertation: "Two approaches to Bayesian signal processing: The Gibbs sampler and the bootstrap filter"
7. Jung-Lin Pan – graduated in 1998 (joint supervision with Prof. Rappaport)  
Dissertation: "Multibeam scheme and dynamic channel assignment in cellular mobile and personal communications"
8. Joon-Hwa Chun – graduated in 2000  
Dissertation: "Analysis of nonstationary hidden Markov models by MCMC sampling"
9. Chung-Chieh Lin – graduated in 2001  
Dissertation: "Processing of chirp and chirplet signals by MCMC methods"
10. Yufei Huang – graduated in 2001  
Dissertation: "New perfect sampling schemes and their application to signal processing"
11. Jayesh Kotecha – graduated in 2001  
Dissertation: "Sequential Monte Carlo methods for dynamic state space models with applications to communications"
12. Jianqiu (Michelle) Zhang – graduated in 2002  
Dissertation: "Particle filtering and its application in communications,"
13. Miodrag Bolić -graduated in 2004  
Dissertation: "Architectures for efficient implementation of particle filters"
14. Tadesse Ghirmai – graduated in 2004  
Dissertation: "Sequential Monte Carlo techniques for blind synchronization and detection"
15. Xueying Zhang – graduated in 2006  
Dissertation: "Stochastic modeling, simulation, and parameter estimation for chemical reactions in biological systems"
16. Shanshan Xu – graduated in 2006  
Dissertation: "Particle filtering for systems with unknown noise probability distributions,"
17. Akshay Athalye – graduated in 2007  
Dissertation: "Design and implementation of reconfigurable hardware for real-time particle filtering" graduated in 2007
18. Jae-Chan Lim – graduated in 2007  
Dissertation: "Tracking a variable number of targets based on RSS measurements in wireless sensor networks"

19. Mahesh Vemula – graduated in 2007  
Dissertation: “Monte Carlo methods for signal processing in wireless sensor networks”
20. Ting Lu – graduated in 2008  
Dissertation: “Improved Monte Carlo-based methods for target tracking with sensor networks
21. Yao Li – graduated in 2008  
Dissertation: “Target tracking with sequential Monte Carlo methods in mobile sensor networks”
22. Zejie Zhang – graduated in 2008  
Dissertation: “On proposal densities for particle filtering”
23. Mahsiul Khan – graduated in 2009  
Dissertation: “Simulation-based sequential Bayesian filtering with Rao-Blackwellization applied to nonlinear dynamic state space models”
24. Vibha Mane – graduated in 2010  
Dissertation: “Moment propagation methods for stochastic simulation of complex biochemical systems”
25. Shishir Dash – graduated in 2014  
Dissertation: “Bayesian methods for feature extraction and classification of fetal heart rate signals”
26. Jonathan Beaudeau – graduated in 2014  
Dissertation: “Multi-agent systems for cooperative tracking”
27. Zhiyuan Weng – graduated in 2014  
Dissertation: “Distributed estimation in the presence of correlation”
28. Yunlong Wang – graduated in 2015  
Dissertation: “Distributed Bayesian learning in multi-agent systems”
29. Zhe Shen – graduated in 2015  
Dissertation: “Problems and solutions for backscatter-based tag-to-tag communication in the Internet of Things”
30. Iñigo Urteaga – graduated in 2016  
Dissertation: “Sequential Monte Carlo methods for inference and prediction of latent time-series”
31. Asher Hensley – graduated in 2018  
Dissertation: “Latent Yule-Simon Processes with Applications”
32. Çağla Taşdemir – graduated in 2018  
Dissertation: “Estimation of node hidden processes and network topologies by particle filtering”
33. Kezi Yu – graduated in 2018  
Dissertation: “Analyzing fetal heart rate by models based on hierarchical Dirichlet process”
34. Guanchao Feng – graduated 2020  
Dissertation: “Fetal heart rate analysis with Gaussian processes”

#### **4.2. Mentor of current PhD students**

1. Marzieh Ajirak
2. Kurt Butler
3. Tong Chen
4. Chen Cui
5. Lingqing Gan
6. Taraneh Ghanbari
7. Yuhuan Liu
8. Yuanqing Song
9. Hechuan Wang
10. Liu Yang

#### **4.3. Committee member of PhD defenses**

1. Stony Brook University (more than 60 defenses)
2. Uppsala University, Sweden
3. Linköping University, Sweden
4. University of Cambridge, England
5. ENSEEIHT, France
6. University of Carlos III, Spain
7. Technische Universität Darmstadt, Germany
8. Politecnico di Milano, Italy
9. Eindhoven University of Technology, Holland
10. University of Belgrade, Serbia

#### **4.4. Courses**

##### **Undergraduate Courses**

1. Information Technology Seminars
2. Deterministic Signals and Systems
3. Random Signals and Systems
4. Basic Communication Theory

5. Engineering Design
6. Engineering Design

### **Graduate Courses**

1. Stochastic Systems
2. Detection and Estimation Theory
3. Digital Signal Processing I
4. Digital Signal Processing II
5. Pattern Recognition

## **5. INTERNATIONAL COLLABORATION**

### **5.1. Joint projects with colleagues from universities around the world**

1. University of Cambridge, England
2. University of Edinburg, Scotland
3. University of Carlos III, Spain
4. University of La Coruña, Spain
5. University of Seville, Spain
6. University of Bologna, Italy
7. University of Perugia, Italy
8. École nationale supérieure délectrotechnique, d'électronique, d'informatique, d'hydraulique et des télécommunications, Toulouse, France
9. University of Nice, France
10. University of Ottawa, Canada
11. Universidad de Chile, Chile
12. School of Electrical Engineering, Belgrade, Serbia

### **5.2. Membership of conference/workshop boards**

- |   |              |
|---|--------------|
| 1. General Co-Chair of <i>EUSIPCO</i> , Belgrade, Serbia  | 2022         |
| 2. General Co-Chair of <i>BalkanCom</i> , Novi Sad, Serbia  | 2021         |
| 3. Member of the Conference Board, IEEE Signal Processing Society   | 2019-present |
| 4. Technical Co-Chair of the <i>IEEE International Conference on Acoustics, Speech and Signal Processing</i> , Brighton, UK2019 |              |

5. General Co-Chair of the *IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, Cancun, Mexico 2015
6. Member of Technical Program Committee of *EUSIPCO*, Lisbon, Portugal 2014
7. Member of Technical Program Committee of the *IEEE GLOBECOM*, Austin, TX 2014
8. Technical Program Chair, *IEEE Statistical Signal Processing Workshop*, Nice, France 2011
9. Technical Area Chair, *Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2010
10. Technical Program Co-Chair, *IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing*, Aruba 2009
11. Technical Program Member, *International Conference on Acoustics, Speech and Signal Processing*, Taipei, Taiwan 2009
12. Member of Technical Program Committee, *IEEE International Workshop on Genomic Signal Processing and Statistics (GENSIPS)*, Minneapolis, Minnesota 2009
13. Member, Technical Committee, *IEEE Workshop on Digital Signal Processing*, Marco Island, FL
14. Member, Technical Committee, *Digital Signal Processing*, Cardiff, Wales 2009
15. Member, Technical Committee, *EUSIPCO*, Lausanne, Switzerland 2008
16. Member, Technical Committee, *IEEE Workshop on Computational Advances in Multisensor Adaptive Processing*, US Virgin Islands 2007
17. Member, Technical Committee, *IEEE Workshop on Statistical Signal Processing*, Madison, WI 2007
18. Member, Technical Committee, *ICCCAS*, Fukoka, Japan 2007
19. Member, Technical Committee, *IEEE Workshop on Statistical Signal Processing*, Bordeaux, France 2005
20. Member, Technical Committee, *IEEE International Workshop on Signal Processing Advances in Wireless Communications*, New York, NY 2005
21. Member, Technical Committee, *Workshop on High Order Statistics*, Caesarea, Israel 1999
22. Member, Technical Committee, *SPIE International Symposium, Mathematical Modeling, Bayesian Estimation, and Inverse Problems*, Denver, CO 1999
23. Member, Technical Committee, *SPIE International Symposium, Bayesian Inference for Inverse Problems*, San Diego, CA 1998
24. member, Technical Committee on Personal Communications, *International Conference on Communications*, Montreal, Canada 1997
25. Member, Technical Committee, *Statistical Signal and Array Processing Workshop*, Corfu Island, Greece 1996

### 5.3. Organizer of special sessions at conferences/workshops

1. Special session on “Inference in high-dimensional spaces by Monte Carlo methods,” *IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, Guadeloupe, West Indies 2019

2. Special session on “Monte Carlo-based methods for inference of intractable models,” *Digital Signal Processing Workshop*, London, UK 2017
3. Special session on “Advances in Bayesian Methods for Signal Processing,” *IEEE Sensor Array and Multichannel Signal Processing Workshop*, Rio de Janeiro, Brazil 2016  
Special session on “Inference and Learning over Networks,” *European Signal Processing Conference*, Budapest, Hungary 2016
4. Special session on “Wireless localization,” *Asilomar Conference on Signals, Systems, and Computers*, Asilomar, CA 2014
5. Special session on “Nonparametric Bayesian methods,” *IEEE International Workshop on Machine Learning*, Reims, France 2014
6. Special session on “Advances in Monte Carlo Methods for Signal Processing,” *IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, St. Martin 2013
7. Special session on “Diffusion of Information over Multi-Agent Networks,” *the European Signal Processing Conference*, Marrakesh, Morocco, 2013. 2013
8. Special session on “Advances in the theory and practice of computationally intensive methods for statistical signal processing,” *IEEE Workshop on Computational Advances in Multi-sensor Adaptive Processing*, San Juan, Puerto Rico 2011
9. Special session on “Adaptive signal processing,” *Asilomar Conference*, Asilomar, CA 2009
10. Special session on “Monte Carlo-based signal processing,” *IEEE Workshop on Digital Signal Processing*, Marco Island, FL 2009
11. Special session on “Adaptive methods and Monte Carlo signal processing,” *Asilomar Conference*, Asilomar, CA 2008
12. Special session on “Monte Carlo – based methods for sensor signal processing,” *IEEE Workshop on Computational Advances in Multi-Sensor Adaptive Processing*, US Virgin Islands 2007
13. Special session on “Particle Filtering and Markov chain Monte Carlo techniques,” *IEEE Aerospace Conference*, Big Sky, Montana 2007
14. Special session on “Advances in SMC methods for target tracking,” *EUSIPCO*, Florence, Italy 2006
15. Special session on “Particle Filtering and Markov chain Monte Carlo techniques,” *IEEE Aerospace Conference*, Big Sky, Montana 2006
16. Special session on “Monte Carlo – based methods for sensor signal processing,” *IEEE Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMPSP)*, Puerto Vallarta, Mexico 2005
17. Special session on “Particle Filtering Methods,” *EUSIPCO*, Antalya, Turkey 2005
18. Special session on “Particle Filtering and Markov chain Monte Carlo techniques,” *IEEE Aerospace Conference*, Big Sky, Montana 2005
19. Special session on “Monte Carlo Methods for signal processing in wireless communications,” *IEEE Workshop on Signal Processing Advances in Wireless Communications*, New York 2005
20. Special session on “Particle Filtering and Markov chain Monte Carlo techniques,” *IEEE Aerospace Conference*, Big Sky, Montana 2004
21. Special session on “Advances in signal processing for positioning, tracking and navigation,” at *ICASSP*, Montreal, Canada 2004

22. Special session on “Applications of particle filtering in communications,” at the *EUSIPCO*, Toulouse, France 2002
23. Special session on “Resampling and Monte Carlo in Statistical Signal Processing,” at the *Workshop on Statistical Signal Processing*, Singapore 2001

## 6. CITATION

### 6.1. SCOPUS (as of June 23, 2021)

- Total number of citations: 7903
- Number of citing documents: 5868
- h-index: 39

### 6.1. Google Scholar (as of June 23, 2021)

- Total number of citations: 12810
- h-index: 47
- i10 iindex: 182

10.6.2021.

Поштоване колеге,

Сагласан сам да будем евидентиран као кандидат за члана АИНС.

Срдачни поздрави

A handwritten signature in cursive script, appearing to read "Petar M. Turic".

Петар М. Турић



**Peter M. Đurić**, Distinguished Professor at Stony Brook University, New York since 2017; Chair of Electrical and Computer Engineering since 2016; Visiting Professor of the School of Electrical Engineering in Belgrade since 2017; Visiting Professor at the University of Bologna (Italy); Visiting Professor of École nationale supérieure d'électrotechnique, d'électronique, d'informatique, d'hydraulique et des télécommunications, Toulouse (France), Visiting Fellow of Corpus Christi College, University of Cambridge (England) since 1997; Fellow of IEEE since 2006, Fellow of EURASIP since 2016. ORCID: 0000-0001-7791-3199.

Born on 9/5/57 in Strumica (father Mihajlo and mother Mirjana). Completed elementary and high schools in Strumica. Received BS and MS degrees at the School of Electrical Engineering in Belgrade (track telecommunications) in 1981 and 1986, respectively. Received PhD degree at the University of Rhode Island in 1990 (area: signal processing). With Stony Brook University since 1990, first as an Assistant Professor. Advanced to Associate Professor in 1996, Full Professor in 2001, and Distinguished Professor in 2017.

**Teaching activities.** Teaches courses at all levels at Stony Brook. Has been a mentor to 33 PhD students (currently advises 10 more PhD students). Has been on PhD committees in Serbia, Germany, France, Spain, Italy, England, Holland, and Sweden. Has been a co-founder of an online BE program in Electrical Engineering at Stony Brook University (one of two programs in the US with ABET accreditations) and an MS Program in Engineering Artificial Intelligence. Was Distinguished Lecturer of IEEE in 2008-2009. Has been a lecturer at various summer schools in Europe.

**Research activities.** Works in the area of signal processing with applications to machine learning. Primary activities include Monte Carlo-based methods; signal modeling, detection, and estimation; signal and information processing over networks; Bayesian machine learning; theory of Gaussian processes; radio frequency identification; applications of machine learning to biomedicine.

**Engineering activities.** Currently engaged in big projects with applications of machine learning to medicine and radio frequency identification. Is an author of 126 journal and 317 conference publications. His work has been cited 7903 times (SCOPUS). Is a co-editor of the book “Cooperative and Graph Signal Processing: Principles and Applications,” Elsevier, 2018. Has published 8 book chapters. Has been invited to give lectures at various universities and conferences/workshops around the world.

**International collaboration.** Has collaborated with colleagues from Spain (University Carlos III and Sevilla), Austria (Vienna University of Technology), England (University of Cambridge), Scotland (University of Edinburgh), Italy (Universities of Bologna and Perugia), and Serbia (University of Belgrade).

**Organizational activities.** Has been closely engaged with IEEE and its Signal Processing Society. Has also been very active with a number of organizing committees of various conferences and workshops. Was a cofounder and the first Editor-in-Chief of the IEEE Transactions on Signal and Information Processing over Networks. Has been a member of many award Committees of IEEE and EURASIP.

**Collaboration with institutions and individuals in Serbia.** Since 2017, Visiting Professor of the School of Electrical Engineering in Belgrade. Publishes papers with students and professors from the School of Electrical Engineering in Belgrade. Currently is involved in organizing (a) the biggest European conference in signal processing (EUSIPCO) with colleagues from Belgrade, to be held in Belgrade (2022) and (b) a conference in communication (Balkancom), to be held in Novi Sad (2021). Serves as a General Co-Chair to both conferences. Has participated a couple of times at Neurel in Belgrade.

**Awards.** Technical Achievement Award, European Association for Signal Processing (2012); IEEE Signal Processing Magazine Best Paper Award, “Particle filtering,” *IEEE Signal Processing Magazine*, vol. 20(5), pp. 19-38, 2003. A large number of awards from the National Science Foundation of USA and the National Institutes of Health; Chair of Excellence of Universidad Carlos III de Madrid-Banco de Santander 2008-09.

**Family and hobbies.** Married to Vesna Đurić. They have a son Vladimir. His hobbies include sport (tennis, soccer, basketball, swimming), reading (classics, autobiographies, and books in the areas of physics and cosmology), studying foreign languages.