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RESEARCH INTERESTS

Analog and mixed-signal VLSI circuits, systems and algorithms for parallel multi-channel sensory information processing, acoustic microarrays for real-time source localization and separation, wireless power harvesting, breath analysis systems, micropower implantable biomedical instrumentation and telemetry, autonomous adaptive microsystems.

EDUCATION

The Johns Hopkins University, Baltimore MD

Ph.D., Electrical and Computer Engineering, 2005.

Dissertation: “Mixed-Signal Micropower VLSI Systems for Biomedical Array Signal Processing”

Advisor: Gert Cauwenberghs

The Johns Hopkins University, Baltimore MD

M.S., Electrical and Computer Engineering, 2001.

University of Belgrade, Serbia

Dipl.Ing., Electrical Engineering, 1999.

PROFESSIONAL EXPERIENCE

Stony Brook University, Stony Brook, NY

Associate Professor

September 2011 – present

Stony Brook University, Stony Brook, NY

Assistant Professor

September 2005 – August 2011

The Johns Hopkins University, Baltimore, MD

Research Assistant, Adaptive Microsystems Lab

September 1999 – August 2005

Tokyo Metropolitan Institute of Technology (TMIT), Tokyo, Japan

Research Intern

June – September 1998

AWARDS AND HONORS

- IEEE Region 1 Technological Innovation Award, 2013.
- NSF CAREER Award, 2009.
- EMBS/Whitaker Student Contest Award, 2nd place, EMBS, San Francisco, September 2004.
- Fellowship from Yugoslav Foundation for Young Talents in Art and Sciences, Ministry of Science and Technology, Republic of Serbia, 1994 – 1999.
- Ranked 1st in the graduating class, School of Electrical Engineering, University of Belgrade, Belgrade, Serbia, 1999.

TEACHING

- “Analog Integrated Circuits”, ESE 311 (S’07)
- “Integrated Electronics”, ESE 330 (F’07-F’16)
- “Modern Sensors”, ESE 325/525 (F’12, F’13, F’14)
- “Integrated Electronic Devices and Circuits I”, ESE 516 (F’05-F’16)

- “Integrated Electronic Devices and Circuits II”, ESE 517 (S’07-S’14)
- “Topics in Information Technology Studies”, ITS 102 (S’07, S’08, S’12)

RESEARCH GRANTS AND CONTRACTS

- [G1] *CPS: Breakthrough: Charge-Recycling based Computing Paradigm for Wirelessly Powered Internet-of-Things*, **National Science Foundation**, 09/16-09/19, \$425,000 (co-PI, with E. Salman)
- [G2] *Design of High-Quality Sine Wave Power Source*, **North Atlantic Industries Inc.**, 06/16-12/16, \$33,983 (PI)
- [G3] *Design of analog and digital integrated circuits for cryogenic environment*, **US Department of Energy (subcontract Brookhaven National Laboratory)**, 09/15 - 09/17, \$101,582 (PI)
- [G4] *Design of mixed-signal integrated circuits for cryogenic environment*, **US Department of Energy (subcontract Brookhaven National Laboratory)**, 09/15 - 09/17, \$89,931 (PI)
- [G5] *New Milestone in Energy Autonomy: Novel Charge-Recycling Circuits for Wireless Power Harvesting*, **Stony Brook Foundation: Discovery Fund Prize**, 04/15-04/17, \$50,000 (co-PI, with E. Salman)
- [G6] *SHB: Type I (EXP): Personalized Asthma Monitor Detecting Nitric Oxide in Breath*, **National Science Foundation**, 09/12-09/16, \$599,763 (co-PI, with P. Gouma and S. Simon)
- [G7] *Lifetime Characterization of Complementary Metal Oxide Semiconductors (CMOS) and Field-Programmable Gate Arrays (FPGA) operating in cryogenic environment*, **US Department of Energy (subcontract Brookhaven National Laboratory)**, 04/12 - 12/15, \$188,628, (PI)
- [G8] *CAREER: Spatial Sensing for Design of Miniature Sensor Array Microsystems*, **National Science Foundation**, 07/09-07/14, \$400,000 (PI).
- [G9] *RFID Tag in a Pill : Monitoring Drug Intake*, **Stony Brook University, School of Medicine**, 01/09-12/11, \$150,000 (PI).
- [G10] *Development of a self-powered sensor platform for preventing third-party intrusions into gas pipelines*, **National Grid**, 09/07-08/08, \$100,000 (co-PI, with M. Gouzman).
- [G11] *Semiconductor High-Energy Radiation Detector with Excellent Isotope Identification and Directional Capability*, **Department of Homeland Security**, 03/07-03/12, \$3,922,000 (co-PI, with S. Luryi, A. Kastalsky and N. Lifshitz).
- [G12] *Breath Analysis Device for Urea Detection*, **Medicon**, 02/07-08/07, \$20,000 (co-PI, with P. Gouma).
- [G13] *Integrated Antenna Array Transceiver for Adaptive Beam-forming*, **Center of Excellence in Wireless & Information Technology (CEWIT), Stony Brook University**, 01/07-01/08, \$9,000 (PI).

PATENTS

- [P1] G. Cauwenberghs, M. Stanačević and G. Zweig, "*Gradient Flow Source Localization and Separation*", U.S. Patent 6,865,490, Issued: March 8, 2005.
- [P2] P. Gouma and M. Stanačević, "*Gas Sensor with Compensation for Baseline Variation*", U.S. Patent 8,955,367, Issued: February 17, 2015.
- [P3] S. Einav, S. Sharma, M. Stanačević and R.N. Fine, "*RFID Monitoring of Drug Regimen Compliance*", patent pending, filed March 2009.

INVITED PRESENTATIONS

- "Real-time Low-power VLSI Microsystem for Smart Acoustic Interfaces", The IEEE Long Island Chapter of Circuits and Systems Society, Stony Brook, NY, January 2016.
- "Power Harvesting and Integrated Sensing in Implantable Devices", The IEEE Long Island Chapter of Engineering in Medicine and Biology Society, Melville, NY, May 2014.
- "Wireless Power Transfer for Small Size Implantable Medical Devices ", The 10th International Conference and Expo on Emerging Technologies for a Smarter World, Melville, NY, October 2013.
- "Adaptive VLSI Systems for Acoustic Source Localization and Separation", Michigan State University, East Lansing, MI, April 2010.
- "Micropower Adaptive VLSI Systems for Acoustic Source Detection, Localization and Separation", 2009

CMOS Emerging Technologies Workshop, Vancouver, Canada, Sep. 2009.

- "Adaptive VLSI Microsystems for Acoustic Source Localization and Separation", *Hofstra Computer Science Research Seminar*, Hofstra University, Sep. 2006.
- "Micropower Adaptive VLSI Systems for Acoustic Source Localization and Separation", North Carolina State University, Mar. 2005.
- "Micropower Adaptive VLSI Systems for Acoustic Source Localization and Separation", Stony Brook University, Feb. 2005.
- "Gradient Flow Independent Component Analysis", *Neural Information Processing Systems (NIPS'2003) Workshop "ICA: Sparse Representations in Signal Processing"*, Vancouver, Canada, Dec. 2003.

PROFESSIONAL ACTIVITIES

- *Member*, IEEE, Circuits/Systems Society
- *Associate Editor*, IEEE Transaction on Biomedical Circuits and Systems
- *Review Editor*, Frontiers in Neuromorphic Engineering
- *Guest Editor*, IEEE Transaction on Biomedical Circuits and Systems, Special Issue on ISCAS 2011.
- *Associate Editor*, Int. Conf. of the IEEE Engineering in Medicine and Biology Society (EMBC), 2014.-17.
- *Technical Committee Member* :
 - IEEE Circuits and Systems Society: Sensory Systems
 - IEEE Circuits and Systems Society: Biomedical Circuits & Systems
- *Publication Chair* :
 - IEEE Biomedical Circuits and Systems Conference, BIOCAS 2011.
- *Organizing Committee Member and Special Session Chair*:
 - Artificial Olfaction and Electronic Nose (ISOEN 2011)
- *Program Committee Member* :
 - IEEE Biomedical Circuits and Systems Conference(BIOCAS), 2008-15.
 - Symposium on Integrated Circuits and Systems Design, Rio de Janeiro, Brazil, 2007-10.
 - Argentine School of Micro-Nanoelectronics, Technology and Applications (EAMTA), 2008-15.
 - International Conference on Biomedical Electronics and Devices (BIODEVICES), 2008-10.
 - IEEE International Conference on Electro Information Technology, 2006.
- *Review Committee Member*:
 - IEEE Int. Symp. On Circuits and Systems (ISCAS), 2008-17.
 - IEEE Biomedical Circuits and Systems Conference (BIOCAS), 2008-15.
- *Reviewer*:
 - IEEE Transactions on Circuits and Systems I (TCAS-I)
 - IEEE Transactions on Circuits and Systems II (TCAS-II)
 - IEEE Transaction on Biomedical Circuits and Systems
 - IEEE Transactions on Biomedical Engineering
 - IEEE Transactions on Information Technology in Biomedicine
 - IEEE Transactions on Neural Networks
 - IEEE Sensors Journal
 - Electronics Letters
 - Analog Integrated Circuits and Signal Processing
 - IEEE Int. Symp. On Circuits and Systems (ISCAS)
 - IEEE Biomedical Circuits and Systems Conference (BIOCAS)

GRADUATE ADVISEES

Ph.D. Advisees Alumni:

- Jie Ma, Ph.D, December 2015., (co-advisor G. De Geronimo), now with ALA Scientific Instruments, Inc.
Thesis: *Hot Carrier Study of MOSFET at 300K and 77K*
- Jinghui Jian, Ph.D, December 2015., now with Lorentz Solution, Inc.
Thesis: *Co-Design of Wireless Power Transfer and Data Links for Next Generation Passive Devices*
- Shuo Li, Ph.D, May 2015., now with Second Sight Medical Products, Inc.
Thesis: *Smart Sensing: Mixed-Signal VLSI Implementation of Gradient Flow Localization and Separation*
- Yingkan Lin, Ph.D, Oct 2014., now with OmniVision Technologies, Inc.
Thesis: *Design of Low-power, Low-noise Readout Circuits for Sensory Microsystems*
- Xiao Yun, Ph.D, Aug. 2010., now with Synopsys, Inc.
Thesis: *Front-End Read-Out System for Radiation Scintillation Detector*
- Donghwi Kim, Ph.D., May 2009., now with Intel Corp.
Thesis: *Low-power Low-data-rate Analog Front-end for Neural Recording System*

Current Ph.D. Advisees:

- Yasha Karimi, Ph.D. Candidate, expected 2018
- Ji He, Ph.D. Candidate, expected 2020
- Krithika Yethiraj, Ph.D. Candidate (co-advisor G. De Geronimo), expected 2019
- Wenbin Hou, Ph.D. Candidate (co-advisor G. De Geronimo), expected 2019

Current M.S. Advisees:

- Daniel Khemraj
- Sai Theja Lolla

M.S. Advisees Alumni:

- Sushil Panda, M.S., May 2016. (co-advisor)
- Yi-Shin Yeh, M.S., May 2011., now Ph.D. candidate at North Carolina State University
- Aditya Shyam Ambre, M.S., May 2011., now with Qualcomm
- Aniruddha Dayalu, M.S., Dec 2008., now with ON Semiconductor
- Yi Huang, M.S., Dec 2008., now with Interstil Corp.
- Ram Gandhi, M.S., Dec 2006., now with Intel Corp.

UNIVERSITY SERVICE

Departmental Service

- Member of the Graduate Committee 2016 – present
- Member of the Undergraduate Committee 2006 – 2016.
- Chair of Committee for Ph.D. Qualifying Exam in VLSI and Circuits 2008 – present
- Member of various Ph.D. Dissertation Defence Committees 2005 – present
- Member of the Graduate committee for admissions 2005 – 2014.
- Faculty Search Committee (position Assistant Professor in Sensors & Circuits area) 2010 – 2012.

College Service

- Member of Interviewing and Reviewing Panel for CECN (Centre for Excellence in Computational Neurosciences) Director Search 2009.

Other Service

- ETF BAFA Vice President, Scholarship Awards Program 2010. – present
- Engineering Summer Camp, 'Sensors for autonomous navigation of a robot' 2009.
- Judge at New York State Science and Engineering Fair (NYSSEF) 2009.

PUBLICATIONS

Book Chapters

- [B1] M. Stanačević, Y. Lin, and E. Salman, "Analysis and Design of 3-D Potentiostat for Deep Brain Implantable Devices," *Neural Computation, Neural Devices, and Neural Prosthesis*, ed. Z. Yang, Springer, 2014
- [B2] M. Stanačević and G. Cauwenberghs, "Micropower Adaptive VLSI Systems for Acoustic Source Detection, Localization and Separation," *Integrated Microsystems: Emerging Materials, MEMs, Photonic and Bio Interfaces*, ed. K. Iniewski, Artech House, 2011.
- [B3] M. Mollazadeh, K. Murari, C. Sauer, N. Thakor, M. Stanačević and G. Cauwenberghs, "Wireless Integrated Neurochemical and Neuropotential Sensing," *VLSI Circuits for Biomedical Applications*, ed. K. Iniewski, Artech House, 2008.

Journal Publications

- [J1] T. Wan, Y. Karimi, E. Salman, and M. Stanačević, "Perspective Paper - Can AC Computing Be an Alternative for Wirelessly Powered IoT Devices?," *IEEE Embedded Systems Letters*, vol. 9(1), pp. 13-16, 2017.
- [J2] P. Gouma, L. Wang, S. Simon and M. Stanačević, "Novel Isoprene Sensor for a Flu Virus Breath Monitor," *Sensors*, vol. 17(1), 199., 2017.
- [J3] M. Stanačević, S. Li and G. Cauwenberghs, "Micropower Mixed-signal VLSI Independent Component Analysis for Gradient Flow Acoustic Source Separation," *IEEE Transactions on Circuits and Systems I: Regular Papers*, vol. 63(7), pp. 972-981, 2016.
- [J4] P. Gouma, S. Simon, and M. Stanačević, "Nano-sensing and catalysis technologies for managing food-water-energy (FEW) resources in farming," *Materials Today Chemistry*, vol. 1, pp. 40-45, 2016.
- [J5] Z. Gan, E. Salman, and M. Stanačević, "Figures-of-Merit to Evaluate the Significance of Switching Noise in Analog Circuits," *IEEE Transactions on Very Large Scale Integration (VLSI) Systems (TVLSI)*, vol. 23(12), pp. 2945-2956, 2015.
- [J6] P. Gouma, M. Stanačević and S. Simon, "An overview of the translation of selective semiconducting gas sensors from first results to automotive exhaust gas monitors to a platform for breath-based diagnostics," *Translational Materials Research*, vol. 2(4), pp.045001, 2015.
- [J7] P. Gouma, A. Prasad and M. Stanačević, "Selective Nanosensor Array Microsystem for Exhaled Breath Analysis," *Journal of Breath Research*, vol. 5(3), 2011.
- [J8] X. Yun, M. Stanačević and S. Luryi, "Low-Power Amplifier for Readout Interface of Semiconductor Scintillator," *IEEE Trans. Nuclear Science*, vol. 58(4), pp. 2129 – 2136, 2011.
- [J9] S. Luryi, A. Kastalsky, M. Gouzman, N. Lifshitz, O. Semyonov, M. Stanačević, A. Subashiev, V. Kuzminsky, W. Cheng, V. Smagin, Z. Chen, J.H. Abeles, W.K. Chan and Z.A. Shellenbarger, "Epitaxial InGaAsP/InP photodiode for registration of InP scintillation", *Nucl. Instr. and Meth. in Phys. Research A*, vol. 622, pp. 113 – 119, 2010.
- [J10] L. Wang, K. Kalyanasundaram, M. Stanačević and P. Gouma, "Nanosensor Device for Breath Acetone Detection", *Sensor Letters*, vol. 8(5), pp. 709 – 712, 2010.
- [J11] P. Gouma, K. Kalyanasundaram, L. Wang, X. Yun and M. Stanačević, "Nanosensor and Breath Analyzer for Ammonia Detection in Exhaled Human Breath", *IEEE Sensor Journal*, vol. 10(1), pp. 49 – 53, 2010.
- [J12] K.-S. Park, J. Lee, M. Stanačević, S. Hong and W.-D. Cho, "Iterative Object Localization Algorithm Using Visual Images with a Reference Coordinate", *EURASIP Journal on Image and Video Processing*, Article ID 256896, 2008.

- [J13] M. Stanaćević, K. Murari, A. Rege, G. Cauwenberghs and N. Thakor, "VLSI Potentiostat Array with Oversampling Gain Modulation for Wide-Range Neurotransmitter Sensing," *IEEE Trans. Biomedical Circuits and Systems*, vol. 1(1), pp. 63-72, 2007.
- [J14] R. Genov, M. Stanaćević, M. Naware, G. Cauwenberghs and N. Thakor, "16-Channel Integrated Potentiostat for Distributed Neurochemical Sensing," *IEEE Trans. Circuits and Systems I: Regular Papers*, vol. 53(11), pp. 2371 – 2376, 2006.
- [J15] M. Stanaćević and G. Cauwenberghs, "Micropower Gradient Flow VLSI Acoustic Localizer," *IEEE Trans. On Circuits and Systems I: Regular Papers*, vol. 52(10), pp. 2148 – 2157, 2005.
- [J16] C. Sauer, M. Stanaćević, G. Cauwenberghs and N. Thakor, "Power Harvesting and Telemetry in CMOS for Implanted Devices," *IEEE Trans. on Circuits and Systems I: Regular Papers*, vol. 52(12), pp. 2605 – 2613, 2005.
- [J17] K. Murari, M. Stanaćević, G. Cauwenberghs and N. Thakor, "Wide-Range, Picoampere-Sensitivity Multichannel VLSI Potentiostat for Neurotransmitter Sensing," *IEEE Engineering in Medicine and Biology Magazine*, vol. 24(6), pp. 23-29, 2005.

Conference Proceedings

- [C1] Y. Karimi, A. Athalye, S. Das, P. Djurić and M. Stanaćević, "Design of Backscatter-Based Tag-to-Tag System", *Proc. IEEE Int. Conf. on RFID (RFID'17)*, Phoenix, AZ, 2017.
- [C2] P. Gouma, M. Stanaćević, Y. Karimi, J. Huang, and G. Jodhani, "NO Nanosensor and Single Exhale Breathalyzer for Asthma Monitoring", *Proc. ISOCS/IEEE Int. Symp. on Olfaction and Electronic Nose (ISOEN'17)*, Montreal, Canada, 2017.
- [C3] A. Khalifa, Y. Karimi, Q. Wang, E. Greenwald, S. Chiu, M. Stanaćević, N. Thakor and R. Etienne-Cummings, "In-Vivo Tests of an Inductively Powered Miniaturized Neural Stimulator", *Proc. IEEE Int. Symp. Circuits and Systems (ISCAS'2017)*, Baltimore, MD, 2017.
- [C4] T. Wan, Y. Karimi, E. Salman and M. Stanaćević, "Energy Efficient AC Computing Methodology for Wirelessly Powered IoT Devices", *Proc. IEEE Int. Symp. Circuits and Systems (ISCAS'2017)*, Baltimore, MD, 2017.
- [C5] T. Wan, E. Salman and M. Stanaćević, "A New Circuit Design Framework for IoT Devices: Charge-Recycling with Wireless Power Harvesting", *Proc. IEEE Int. Symp. Circuits and Systems (ISCAS'2016)*, Montreal, Canada, 2016.
- [C6] J. Jian and M. Stanaćević, "Adaptive Transmitting Coil Array for Optimal Power Transfer in Deeply Implanted Medical Devices", *Proc. IEEE Int. Symp. Circuits and Systems (ISCAS'2016)*, Montreal, Canada, 2016.
- [C7] P. Gouma, J. Huang, Y. Lin and M. Stanaćević, "Three-nanosensor array microsystem to monitor infections", *Proc. International Symposium on Olfaction and Electronic Nose (ISOEN'15)*, June 2015.
- [C8] P. Gouma, S. Sood, M. Stanaćević and S. Simon, "Selective Chemosensing and Diagnostic Breathalyzer", *Proc. Euroensors 2014*, 2014.
- [C9] J. Jian and M. Stanaćević, "Optimal Position of the Transmitter Coil for Wireless Power Transfer to the Implantable Device", *Proc. 36th Ann. Int. Conf. IEEE Engineering in Medicine and Biology Society (EMBC)*, Chicago 2014.
- [C10] P. Gouma, M. Alkhandar and M. Stanaćević, "Metabolic Rate Monitoring and Weight Reduction/Management", *Proc. 36th Ann. Int. Conf. IEEE Engineering in Medicine and Biology Society (EMBC)*, Chicago 2014.
- [C11] A. Butt and M. Stanaćević, "Implementation of Mind Control Robot", *Proc. Long Island Systems Applications and Technology Conference (LISAT)*, May 2014.
- [C12] S. Li and M. Stanaćević, "Mixed-signal VLSI Independent Component Analyzer for Hearing Aid

- Applications", *Proc. 36th Ann. Int. Conf. IEEE Engineering in Medicine and Biology Society (EMBC)*, Chicago 2014.
- [C13] S. Li, Y. Lin and M. Stanačević, "Mixed-Signal VLSI Microsystem for Acoustic Source Separation", *Proc. 56th. IEEE Midwest Symp. on Circuits and Systems (MWSCAS'2013)*, Columbus, OH, 2013.
- [C14] Y. Lin and M. Stanačević, "A Low-Power, High-Linearity Filter Bank for Auditory Signal Processing Microsystem", *Proc. 56th. IEEE Midwest Symp. on Circuits and Systems (MWSCAS'2013)*, Columbus, OH, 2013.
- [C15] Y. Lin, P. Gouma and M. Stanačević, "A Low-Power Wide-Dynamic-Range Readout IC for Breath Analyzer System", *Proc. IEEE Int. Symp. Circuits and Systems (ISCAS'2013)*, Beijing, China, 2013.
- [C16] Y. Lin and M. Stanačević, "Low-noise Readout IC with Integrated Analog-to-Digital Conversion for Radiation Detection System", *Proc. IEEE Int. Symp. Circuits and Systems (ISCAS'2013)*, Beijing, China, 2013.
- [C17] S. Li and M. Stanačević, "Subband Gradient Flow Acoustic Source Separation for Moderate Reverberation Environment", *Conf. Rec. of the 46th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove CA, Nov 2012.
- [C18] S. Li and M. Stanačević, "Gradient Flow Source Localization in Noisy and Reverberant Environments", *Conf. Rec. of the 46th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove CA, Nov 2012.
- [C19] Z. Gan, E. Salman and M. Stanačević, "Methodology to Determine Dominant Noise Source in a System-on-Chip Based Implantable Device", *Proc. of the IEEE International System-on-Chip Conference (SOCC)*, Sep 2012.
- [C20] A. Chacon-Rodriguez, S. Li, M. Stanačević, L. Rivas, E. Baradin and P. Julian, "Low Power Switched Capacitor Implementation of Discrete Haar Wavelet Transform," *Proc. 3rd IEEE Latin American Symp. on Circuits and Systems (LASCAS'2012)*, Feb 2012.
- [C21] E. Salman and M. Stanačević, "3-D Integrated Implantable Device for Deep Brain Sensing and Stimulation," *Proc. of the International Conference and Expo on Emerging Technologies for a Smarter World*, Nov 2011.
- [C22] E. Salman, M. H. Asgari and M. Stanačević, "Signal Integrity Analysis of a 2-D and 3-D Integrated Potentiostat for Neurotransmitter Sensing," *IEEE Biomedical Circuits and Systems Conference (BIOCAS 2011)*, Nov 2011.
- [C23] J. Jian, M. Stanačević, S. Einav and R. Fine, "RFID Technology for Monitoring Drug Intake," *Proc. 7th Int. Conf. & Expo on Emerging Technologies for a Smarter World (CEWIT 2010)*, Incheon, Korea, 2010.
- [C24] E. Salman, A. Daboli and M. Stanačević, "Noise and Interference Management in 3-D Integrated Wireless Systems," *Proc. 7th Int. Conf. & Expo on Emerging Technologies for a Smarter World (CEWIT 2010)*, Incheon, Korea, 2010.
- [C25] S. Li, X. Yun and M. Stanačević, "Low-power System-on-chip Acoustic Localizer," *Proc. 53rd. IEEE Midwest Symp. on Circuits and Systems (MWSCAS'2010)*, Seattle, WA, August 1-4, 2010.
- [C26] X. Yun, S. Luryi and M. Stanačević, "Low-power Charge Sensitive Amplifier for Semiconductor Scintillator," *Proc. IEEE Int. Symp. Circuits and Systems (ISCAS'2010)*, Paris, France, 2010.
- [C27] L. Wang, X. Yun, M. Stanačević and P. Gouma, "An Acetone Nanosensor For Non-invasive Diabetes Detection," *Proc. 13th International Symposium on Olfaction and Electronic Nose*, May 2009.
- [C28] X. Yun and M. Stanačević, "An Adaptive Front-end Readout System for Radiation Detection," *Proc. IEEE Int. Symp. Circuits and Systems (ISCAS'2009)*, Taipei, Taiwan, 2009.
- [C29] X. Yun, L. Wang, K. Kalyanasundaram, M. Stanačević and P. Gouma, "Binary sensor prototype for detection of signaling metabolites", *Proc. IEEE Sensors 2008*, Lecce, Italy, October 26-29, 2008.
- [C30] X. Yun, M. Stanačević, V. Kuzminsky and M. Gouzman, "Current-mode Preamplifier for Response

- Measurement of Semiconductor Scintillator", *Proc. 51st. IEEE Midwest Symp. on Circuits and Systems (MWSCAS'2008)*, Knoxville, TN, August 10-13, 2008.
- [C31] D. Kim, M. Stanačević, R. Kamua and Z. Mainen, "An Ultra-Low-Power Low-Data-Rate Neural Recording System with an Adaptive Spike Detection ", *Proc. 51st. IEEE Midwest Symp. on Circuits and Systems (MWSCAS'2008)*, Knoxville, TN, August 10-13, 2008.
- [C32] X. Yun and M. Stanačević, "Extended Counting ADC for 32-Channel Neural Recording Headstage for Small Animals," *Proc. IEEE Int. Symp. Circuits and Systems (ISCAS'2008)*, Seattle, May 18-21, 2008.
- [C33] X. Yun, D. Kim, M. Stanačević and Z. Mainen, "Low-power High-resolution 32-channel Neural Recording System," *29th Ann. Int. Conf. IEEE Engineering in Medicine and Biology Society (EMBS'2007)*, Lyon, France, Aug, 2007.
- [C34] Y. Wei, X. Yun, M. Stanačević and A. Dobioli, "Design of Mixed-Signal Circuits for Wireless Communication Systems and Implanted Neural Devices in 3D Technology," *Nano and Giga Challenges in Electronics and Photonics (NGC2007)*, Phoenix, March 2007.
- [C35] X. Yun, D. Kim, R. Gandhi and M. Stanačević, "Implanted Neural Devices in 3D-SOI Technology," *Connecticut Symposium on Microelectronics & Optoelectronic (CMOC'2007)*, New Haven, March 2007.
- [C36] D. Kim, R. Kamoua and M. Stanačević, "Low-power Low-noise Neural Amplifier in 0.18 μm FD-SOI Technology," *Proc. IEEE Int. Symp. Circuits and Systems (ISCAS'2007)*, New Orleans, May 25-28, 2007.
- [C37] M. Mollazadeh, K. Murari, C. Sauer, M. Stanačević, N. Thakor, G. Cauwenberghs, "Wireless Integrated Voltametric and Amperometric Biosensing," *IEEE Life Science Systems and Applications Workshop*, July 2006.
- [C38] K. Murari, Y. Zhang, M. Mollazadeh, C. Sauer, M. Stanačević, G. Cauwenberghs, J. Harb and N. Thakor, "A Hybrid Microbattery/Inductive Link System for Neurochemical Sensing," *Proc. of the Biomedical Engineering Society Conference*, Chicago, Oct 11-14, 2006.
- [C39] A. Celik, M. Stanačević and G. Cauwenberghs, "Gradient Flow Independent Component Analysis in Micropower VLSI," *Adv. Neural Information Processing Systems (NIPS'2005)*, Cambridge: MIT Press, vol. 18, 2005.
- [C40] K. Murari, C. Sauer, M. Stanačević, G. Cauwenberghs and N. Thakor, "Wireless Multichannel Integrated Potentiostat for Distributed Neurotransmitter Sensing," *Proc. 27th Ann. Int. Conf. IEEE Engineering in Medicine and Biology Society (EMBS'2005)*, Shanghai, China, Sept. 1-4, 2005.
- [C41] P. Julian, A.G. Andreou, G. Cauwenberghs, M. Stanačević, D.G. Goldberg, P.S. Mandolesi, L. Riddle and S. Shamma, "Field Tests of Micropower Bio-Inspired Integrated Circuits for Bearing Estimation," *Proc. IEEE Int. Symp. Circuits and Systems (ISCAS'2005)*, Kobe Japan, May 23-26, 2005.
- [C42] G. Cauwenberghs, A. Andreou, J. West, M. Stanačević, A. Celik, P. Julian, T. Teixeira, C. Diehl and L. Riddle, "A Miniature, Low-Power, Intelligent Sensor Node for Persistent Acoustic Surveillance," *Proc. SPIE Defense and Security Symposium*, Orlando FL, Mar. 28-Apr. 1, 2005.
- [C43] M. Stanačević, K. Murari, G. Cauwenberghs and N. Thakor, "16-Channel Wide-range VLSI Potentiostat Array," *IEEE International Workshop on BioMedical Circuits and Systems (BIOCAS'2004)*, Singapore, Dec 2004.
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