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## Biografie

Peter Baltus was born on July 5th 1960 in Sittard and received his masters degree in Electrical Engineering from Eindhoven University of Technology in 1985, and his PhD degree from the same university in 2004. He worked for 22 years at Philips and later NXP in Eindhoven, Nijmegen, Tokyo and Sunnyvale in various functions, including research scientist, program manager, architect, domain manager, group leader and fellow in the areas of data converters, microcontroller architecture, digital design, software, and RF circuits and systems. In 2007 he started his current job at the Eindhoven University of Technology as professor in high-frequency electronics. From 2007 through 2016 he was director of the Centre for Wireless Technology and as of 2017 he is chair of the mixed-signal micro-electronics group. He co-authored more than 100 papers and holds 16 US patents

## Onderzoeksoutput

### Power Reduced Monolithic Wireless Sensor

Gao, H., Matters - Kammerer, M. & Baltus, P. G. M. 12 apr 2018 In : IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology. 10 blz.

### A 60 GHz low power self-mixing receiver in 65-nm CMOS for a radio-triggered battery-less monolithic wireless sensor

Gao, H., Matters-Kammerer, M. & Baltus, P. G. M. 1 jan 2018 In : IEEE Journal on Emerging and Selected Topics in Circuits and Systems. 11 blz., 08278164

### Batteryless mm-wave wireless sensors

Gao, H., Matters - Kammerer, M., Milosevic, D. & Baltus, P. G. M. 2018 Springer International Publishing. (Batteryless mm-Wave Wireless Sensors)

### A 900 MHz RF energy harvesting system in 40 nm CMOS technology with efficiency peaking at 47% and higher than 30% over a 22dB wide input power range

Wang, J., Jiang, Y., Dijkhuis, J., Dolmans, G., Gao, H. & Baltus, P. G. M. 7 nov 2017 *ESSCIRC 2017 - 43rd IEEE European Solid State Circuits Conference*, 11-14 September 2017, Leuven, Belgium. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 299-302 4 blz.

### Damper-to-damper path loss characterization for intra-vehicular wireless sensor networks

Mendes da Costa Jr., C. A., Gao, H., Le Polain, T., van Dommele, A. R., Smolders, A. B., Dheans, M. & Baltus, P. G. M. 12 okt 2017 *The European Microwave Conference 2017*, 8-13 October 2017, Nuremberg, Germany. Piscataway: IEEE Press, blz. 1341-1344

### Interpolation based wideband beamforming architecture

Wang, B., Gao, H., Matters-Kammerer, M. & Baltus, P. G. M. 28 sep 2017 *2017 IEEE International Symposium on Circuits and Systems (ISCAS)*, 28-31 May 2017, Baltimore, Maryland. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1-4

### Noise analysis of a BJT-based charge pump for low-noise PLL applications

Dhar, D., van Zeijl, P. T. M., Milosevic, D., Gao, H. & Baltus, P. G. M. sep 2017 *2017 European Conference on Circuit Theory and Design (ECCTD)*, IEEE. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), 4 blz. 8093234

### Identifying EMC-critical devices by monitoring and classifying operating region transitions

Duipmans, L. J., Milosevic, D., Van Der Wel, A. & Baltus, P. G. M. 31 jul 2017 *Proceedings of the 2017 11th International Workshop on the Electromagnetic Compatibility of Integrated Circuits, EMCCompo 2017*, 4-8 July 2017, St. Petersburg, Russia. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 9-14 6 blz. 7998073

**Exploring the unknown through successive generations of low power and low resource versatile agents**

Andraud, M. N., Berkol, G., De Roose, J., Gannavarapu, S., Xin, H., Cantatore, E., Harpe, P. J. A., Verhelst, M. & Baltus, P. G. M. 11 mei 2017 *Proceedings of the 2017 Design, Automation and Test in Europe, DATE 2017, 27-31 March 2017, Lausanne, Switzerland*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 290-293 4 blz. 7927001

**A nonlinear transfer function based receiver for wideband interference suppression**

Ying, K., Gao, H., Milosevic, D. & Baltus, P. 31 jan 2017 In : *Journal of Sensors*. 2017, blz. 1-15 240594

**An active Ka-band shared aperture antenna with 50 dB isolation for satellite communication**

Zamanifekri, A., Lu, C., Visser, H. J., Sanders, P., Matters - Kammerer, M., Geurts, M., Baltus, P. G. M. & Smolders, A. B. 2017 In : *IEEE Antennas and Wireless Propagation Letters*. 16, blz. 2042-2045 4 blz.

**Bi-directional 35-Gbit/s 2D beam steered optical wireless downlink and 5-Gbit/s localized 60-GHz communication uplink for hybrid indoor wireless systems**

Khalid, A. M., Baltus, P. G. M., Dommele, A. R., Mekonnen, K. A., Cao, Z., Oh, C. W., Matters, M. K. & Koonen, A. M. J. 2017 *2017 Optical Fiber Communications Conference and Exhibition (OFC), 19-23 March 2017, Los Angeles, California*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1-3 ThE1.6

**Bi-directional 35-Gbit/s 2D beam steered optical wireless downlink and 5-Gbit/s localized 60-GHz communication uplink for hybrid indoor wireless systems**

Khalid, A. M., Baltus, P. G. M., Dommele, A. R., Mekonnen, K. A., Cao, Z., Oh, C. W., Matters, M. K. & Koonen, A. M. J. 2017 *2017 Optical Fiber Communications Conference and Exhibition (OFC), 19-23 March 2017, Los Angeles, California*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1-3 Th1E.6

**A 60 GHz phased array system evaluation based on a 5-bit phase shifter in CMOS technology**

Wang, B., Gao, H., Ying, K., Matters-Kammerer, M. K. & Baltus, P. G. M. 22 nov 2016 *23rd IEEE Symposium on Communications and Vehicular Technology in the Benelux (IEEE SCVT), 22 November 2016, Mons Belgium*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1-4 4 blz.

**Poster : Design consideration of 60 GHz low power low-noise amplifier in 65 nm CMOS**

Chen, Z., Gao, H., van Dommele, A. R., Milosevic, D. & Baltus, P. G. M. 22 nov 2016 *23rd IEEE Symposium on Communications and Vehicular Technology in the Benelux, 22 november 2016, Mons, Belgium*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1-4 4 blz.

**A 16-43 GHz low-noise amplifier with 2.5-4.0 dB noise figure**

Chen, Z., Gao, H., Leenaerts, D. M. W., Milosevic, D. & Baltus, P. G. M. 9 nov 2016 *2016 IEEE Asian Solid-State Circuits Conference (A-SSCC), November 7-9, 2016, Toyama, Japan*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 349-352 4 blz.

**A 60 GHz 5-bit digital controlled phase shifter in a digital 40-nm CMOS technology without ultra-thick metals**

Gao, H., Ying, K., Matters - Kammerer, M., Harpe, P., Wang, B., Liu, B., Serdijn, W. & Baltus, P. 15 sep 2016 In : *Electronics Letters*. 52, 19, blz. 1611-1613 3 blz.

**A 50-60 GHz mm-wave rectifier with bulk voltage bias in 65-nm CMOS**

Gao, H., Matters-Kammerer, M., Harpe, P. & Baltus, P. 26 jul 2016 In : *IEEE Microwave and Wireless Components Letters*. 26, 8, blz. 631 - 633 3 blz.

**A 48-61 GHz LNA in 40-nm CMOS with 3.6 dB minimum NF employing a metal slotting method**

Gao, H., Ying, K., Matters-Kammerer, M. K., Harpe, P., Ma, Q., van Roermund, A. & Baltus, P. 22 mei 2016 *2016 IEEE Radio Frequency Integrated Circuits Symposium (RFIC)*. Mehta, S. & Lin, L. (redacties). Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 154-157 4 blz.

**Silicon-based true-time-delay phased-array front-ends at ka-band**

Ma, Q., Leenaerts, D. M. W. & Baltus, P. G. M. 1 sep 2015 In : *IEEE Transactions on Microwave Theory and Techniques*. 63, 9, blz. 2942-2952 11 blz., 7181729

**System study on nonlinear suppression of varying-envelope local interference in multimode transceivers**

Habibi, H., Janssen, E., Wu, Y., Bergmans, J. & Baltus, P. 31 jul 2015 In : *AEÜ - International Journal of Electronics and Communications*. 69, 7, blz. 963-973

**Analysis of an adaptive nonlinear interference suppressor for wireless multimode transceivers**

Habibi, H., Janssen, E. J. G., Wu, Y., Baltus, P. G. M. & Bergmans, J. W. M. 2015 In : *IEEE Transactions on Vehicular Technology*. 64, 3, blz. 926-941 16 blz.

**A 20 GHz 1.9 dB NF LNA with distributed notch filtering for VSAT applications**

Lu, C., Matters - Kammerer, M., Mahmoudi, R. & Baltus, P. G. M. 2014 *Proceedings of the International Microwave Symposium Digest 2014 (IEEE MTT-S 2014), 1-6 June 2014, Tampa Bay, Florida*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1-4

**A 50 – 60 GHz rectifier with –7dBm sensitivity for 1 V DC output voltage and 8% efficiency in 65-nm CMOS**

Gao, H., Matters - Kammerer, M., Milosevic, D., Roermund, van, A. & Baltus, P. G. M. 2014 *Proceedings of the 2014 IEEE MTT-S International Microwave Symposium (IMS 2014), 1-6 June 2014, Tampa Bay, Florida*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1-3

**A 60-GHz energy harvesting module with on-chip antenna and switch for co-integration with ULP radios in 65-nm CMOS with fully wireless mm-wave power transfer measurement**

Gao, H., Matters - Kammerer, M., Harpe, P. J. A., Milosevic, D., Roermund, van, A. H. M., Linnartz, J. P. M. G. & Baltus, P. G. M. 2014 *Proceedings of the International Symposium on Circuits and Systems (ISCAS2014), 1-5 June 2014, Melbourne, Australia*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1640-1643

**A 60-GHz injection locked oscillator for self-demodulation ultra-low power radio in 65-nm CMOS**

Gao, H., Matters - Kammerer, M., Li, X., Milosevic, D., van Roermund, A. & Baltus, P. G. M. 2014 *2014 IEEE 21st Symposium on Communications and Vehicular Technology in the Benelux (SCVT)*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), 4 blz.

**A millimeter-wave tunable transformer-based dual-antenna duplexer with 50 dB isolation**

Lu, C., Matters - Kammerer, M., Mahmoudi, R. & Baltus, P. G. M. 2014 *IEEE Custom Integrated Circuits Conference, 15-17 September 2014, San Jose, California, USA*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE)

**A scalable baseband phase shifter with 12 GHz I/Q mixers in 40-nm CMOS for 60 GHz applications**

Lu, C., Matters - Kammerer, M., Habekotte, E., Hartingsveldt, van, K., Wilt, van der, F. P., Mahmoudi, R. & Baltus, P. G. M. 2014 *Proceedings of the IEEE International Symposium on Circuits and systems (ISCAS), 1-5 June 2014, Melbourne, Australia*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 2708-2711

**Differential 60 GHz Antenna-on-Chip in mainstream 65 nm CMOS technology**

Smolders, A. B., Johannsen, U., Liu, M., Yu, Y. & Baltus, P. G. M. 2014 *Proceedings of the Antennas and Propagation Society International Symposium (APSURSI), 6-11 July 2014, Memphis, Tennessee, USA*. Institute of Electrical and Electronics Engineers (IEEE), blz. 356-357

**Feasibility study on analogue cancellation of local interference in multimode transceivers**

Habibi, H., Zamanifekri, A., Janssen, E. J. G., Wu, Y., Baltus, P. G. M. & Bergmans, J. W. M. 2014 *Proceedings of the 20th European Wireless Conference, European Wireless 2014; 14-16 May 2014, Barcelona, Spain*. Berlin: VDE Verlag, blz. 980-983

**Front end power dissipation minimization and optimal transmission rate for wireless receivers**

Heuvel, van den, J. H. C., Wu, Y., Baltus, P. G. M., Linnartz, J. P. M. G. & Roermund, van, A. H. M. 2014 In : *IEEE Transactions on Circuits and Systems. I, Fundamental Theory and Applications*. 61, 5, blz. 1566-1577 12 blz.

**A 48 GHz 6-bit LO-Path Phase Shifter in 40-nm CMOS for 60 GHz Applications**

Lu, C., Matters - Kammerer, M., Habekotte, E., Hartingsveldt, van, K., Wilt, van der, F. P., Mahmoudi, R. & Baltus, P. G. M. 2013 *Proceedings of the 39th European Solid-State Circuits Conference (ESSCIRC), 16-20 September 2013, Bucharest, Romania*. Romania, blz. 73-76

**A 60-GHz rectenna for monolithic wireless sensor tags**

Gao, H., Johannsen, U., Matters - Kammerer, M., Milosevic, D., Smolders, A. B., Roermund, van, A. H. M. & Baltus, P. G. M. 2013 *Proceedings of the IEEE International Symposium on Circuits and Systems (ISCAS), 19-23 May 2013, Beijing, China*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 2796-2799

**A 62GHz inductor-peaked rectifier with 7% efficiency**

Gao, H., Matters - Kammerer, M., Milosevic, D., Roermund, van, A. H. M. & Baltus, P. G. M. 2013 *Proceedings of the 2013 IEEE Radio Frequency Integrated Circuits Symposium (RFIC 2013), 2-4 June, Seattle, USA*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 189-192

**A 71GHz RF energy harvesting tag with 8% efficiency for wireless temperature sensors in 65nm CMOS**

Gao, H., Matters - Kammerer, M., Harpe, P. J. A., Milosevic, D., Johannsen, U., Roermund, van, A. H. M. & Baltus, P. G. M. 2013 *Proceedings of the 2013 IEEE Radio Frequency Integrated Circuits Symposium (RFIC 2013), 2-4 June, Seattle, USA*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 403-406

**A design of 2.4GHz rectifier in 65nm CMOS with 31% efficiency**

Gao, H., Matters - Kammerer, M., Milosevic, D., Linnartz, J. P. M. G. & Baltus, P. G. M. 2013 *Proceedings of the 2013 IEEE 20th Symposium on Communications and Vehicular Technology in the Benelux (SCVT), 21 November 2013, Namur, Belgium*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1-4

**A design of 60GHz LNA with 3.6dB NF and 17dB Gain in 40nm CMOS**

Gao, H., Matters - Kammerer, M., Milosevic, D. & Baltus, P. G. M. 2013

**A design of 60GHz LNA with 4.8dB NF, 15dB gain and 5mW in 65nm CMOS**

Chen, Z., Gao, H., Li, X., Baltus, P. G. M. & Roermund, van, A. 2013

**Adaptive nonlinear interference suppressor for cognitive radio applications**

Habibi, H., Pooh Ling, E., Janssen, E. J. G., Wu, Y., Milosevic, D., Bergmans, J. W. M. & Baltus, P. G. M. 2013 *Proceedings of the Workshop on Cognitive Radio, 18-19 June 2013, Kista, Sweden*. blz. 16-20

**Closed-loop adaptation of a nonlinear interference suppressor for local interference in multimode transceivers**

Habibi, H., Janssen, E. J. G., Wu, Y., Baltus, P. G. M. & Bergmans, J. W. M. 2013 *Proceedings of 34th Symposium on Information Theory in the Benelux 30 and 31 May 2013, Leuven, Belgium*. Pollin, S., Perre, Van der, L. & Stas, A. (redacties). Leuven, Belgium, blz. 61-68

**Co-integration of an RF energy harvester into a 2.4 GHz transceiver**

Masuch, J., Delgado-Restituto, M., Milosevic, D. & Baltus, P. G. M. 2013 In : *IEEE Journal of Solid-State Circuits*. 48, 7, blz. 1565-1574 10 blz.

**Experimental evaluation of an adaptive nonlinear interference suppressor for multimode transceivers**

Habibi, H., Janssen, E. J. G., Hilken, R. G. M., Wu, Y., Milosevic, D., Baltus, P. G. M. & Bergmans, J. W. M. 2013 In : *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*. 3, 4, blz. 602-614 13 blz.

**High resolution phase shifter for a mm-wave adaptive null-forming array**

Lu, C., Matters - Kammerer, M., Habekotte, E., Hartingsveldt, van, K., Wilt, van der, F. P., Mahmoudi, R. & Baltus, P. G. M. 2013 *Par4CR Workshop on Cognitive Radio at the 39th European Solid-State Circuit Conference, 16-20 September 2013, Bucharest, Romania*.

**Modeling of RF energy scavenging for batteryless wireless sensors with low input power**

Wu, Y., Linnartz, J. P. M. G., Gao, H., Matters - Kammerer, M. & Baltus, P. G. M. 2013 *Proceedings of the 24th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), 8-11 September 2013, London*. London, blz. 527-531

**Nonlinear interference suppressor for varying-envelope local interference in multimode transceivers**

Habibi, H., Janssen, E. J. G., Wu, Y., Baltus, P. G. M. & Bergmans, J. W. M. 2013 *Proceedings of 34th Symposium on Information Theory in the Benelux 30 and 31 May 2013, Leuven, Belgium*. Pollin, S., Perre, Van der, L. & Stas, A. (redacties). Enschede: Universiteit Twente, blz. 61-68

**Robust null-forming in a mm-wave adaptive array with discrete phase shifting schemes**

Lu, C., Wu, Y., Mahmoudi, R., Matters - Kammerer, M., Habekotte, E., Hartingsveldt, van, K., Wilt, van der, F. P. & Baltus, P. G. M. 2013 *Proceedings of Workshop on Partnerships for Cognitive Radio (PAR4CR), 18-19 June 2013, Kista, Sweden*. blz. 123-126

**Smart self-interference suppression by exploiting a nonlinearity**

Janssen, E. J. G., Habibi, H., Milosevic, D., Baltus, P. G. M. & Roermund, van, A. H. M. 2013 *Frequency references, power management for SoC, and smart wireless interfaces : advances in analog circuit design 2013*. Baschirotto, A., Makinwa, K. A. A. & Harpe, P. J. A. (redacties). Dordrecht: Springer, blz. 249-263

**Suppression of constant modulus interference in multimode transceivers using an adaptive nonlinear circuit**

Habibi, H., Janssen, E. J. G., Wu, Y., Milosevic, D., Baltus, P. G. M. & Bergmans, J. W. M. 2013 *NASA/ESA conference on adaptive hardware and systems(AHS-2013), 25-27 June 2013, Turin, Italy*. Turin, Italy

**System analysis and energy model for radio-triggered battery-less monolithic wireless sensor receiver**

Gao, H., Wu, Y., Matters - Kammerer, M., Roermund, van, A. & Baltus, P. G. M. 2013 *Proceedings of the IEEE International Symposium on Circuits and Systems (ISCAS), 19-23 May 2013, Beijing, China*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1572-1575

**System analysis and energy model of 60GHz radio-triggered wireless sensor receiver**

Gao, H., Wu, Y., Matters - Kammerer, M., Milosevic, D., Linnartz, J. P. M. G. & Baltus, P. 2013 *Proceedings of the 2013 IEEE 20th Symposium on Communications and Vehicular Technology in the Benelux (SCVT), 21 November 2013, Namur, Belgium*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1-4

**A 1.8GHz amplifier with 39dB frequency-independent smart self-interference blocker suppression**

Janssen, E. J. G., Milosevic, D. & Baltus, P. G. M. 2012 *Proceedings of the Radio Frequency Integrated Circuits Symposium (RFIC), 17 - 19 June 2012, Montreal, Canada*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 97-100

**A broadband frontend design for UHF RFID tag**

Ma, Q., El Waffaoui, R., Baltus, P. G. M. & Roermund, van, A. H. M. 2012 *Proceedings of the 19th IEEE Symposium on Communications and Vehicular Technology in the Benelux (IEEE SCVT 2012), 16 November 2012, Eindhoven, The Netherlands*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1-12

**A mm-wave analog adaptive array with genetic algorithm for interference mitigation**

Lu, C., Wu, Y., Mahmoudi, R., Matters - Kammerer, M. & Baltus, P. G. M. 2012 *Proceedings of the IEEE International Symposium on Circuits and systems (ISCAS), 20-23 May 2012, Seoul, Korea*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 2373-2376

**A mm-wave analog adaptive array with genetic algorithm for interference mitigation**

Lu, C., Wu, Y., Mahmoudi, R., Matters - Kammerer, M. & Baltus, P. G. M. 2012

**An RF energy harvester with supply management for co-integration into a 2.4 GHz transceiver**

Masuch, J., Delgado-Restituto, M., Milosevic, D. & Baltus, P. G. M. 2012 *Proceedings of the 38th European Solid-State Circuits Conference (ESSCIRC), 17-22 September 2012, Bordeaux, France*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 113-116

**An RF-to-DC energy harvester for co-integration in a low-power 2.4 GHz transceiver frontend**

Masuch, J., Delgado-Restituto, M., Milosevic, D. & Baltus, P. G. M. 2012 *Proceedings of IEEE International Symposium on Circuits and Systems (ISCAS), 20-23 May, Seoul, Korea*. blz. 680-683

#### **Digital hardware resources for steering a nonlinear interference suppressor**

Janssen, E. J. G., Habibi, H., Milosevic, D., Baltus, P. G. M. & Roermund, van, A. H. M. 2012 *Proceedings of the 19th International Conference Mixed Design of Integrated Circuits and Systems (MIXDES)*, 24 - 26 May 2012, Warschau, Poland. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 133-138

#### **Frequency-independent smart interference suppression for multi-standard transceivers**

Janssen, E. J. G., Habibi, H., Milosevic, D., Baltus, P. G. M. & Roermund, van, A. H. M. 2012 *Proceedings of the 42st European Microwave Conference (EuMC)*, 29 October - 1 November 2012, Amsterdam, The Netherlands. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 909-912

#### **Full MIMO spatial filtering approach for dynamic range reduction in wideband cognitive radios**

Heuvel, van den, J. H. C., Linnartz, J. P. M. G., Baltus, P. G. M. & Cabric, D. 2012 In : *IEEE Transactions on Circuits and Systems I: Regular Papers*. 59, 11, blz. 2761-2773

#### **Suppression of constant modulus interference in multimode transceivers by closed-loop tuning of a nonlinear circuit**

Habibi, H., Janssen, E. J. G., Wu, Y., Bergmans, J. W. M. & Baltus, P. G. M. 2012 *Proceedings of the IEEE 75th Vehicular Technology Conference (VTC Spring 2012)*, 6-9 May 2012, Yokohama, Japan. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1-6

#### **System study of a wireless-powered sensor system**

Gao, H., Wu, Y., Baltus, P. G. M., Linnartz, J. P. M. G. & Roermund, van, A. H. M. 2012 *Proceedings of the 23rd Annual Workshop on Circuits and Systems and Signal Processing, ProRISC 2012*, 22-23 October 2012, Rotterdam, The Netherlands.

#### **Ultra-low power 60 GHz low noise amplifier design**

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#### **2.4GHz energy harvesting for ultra low power radio**

Gao, H., Baltus, P. G. M., Mahmoudi, R. & Roermund, van, A. 2011 *Proceedings of the 1st International Workshop on Wireless Energy Transport and Harvesting (IWWETH)*, 28 June 2011, Eindhoven, The Netherlands.

#### **2.4GHz energy harvesting for wireless sensor network**

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#### **A 107 GHz LNA in 65nm CMOS with inductive neutralization and slow-wave transmission lines**

Lu, C., Mahmoudi, R., van Zeijl, P., Baltus, P. G. M. & Roermund, van, A. H. M. 2011

#### **A 60 GHz ultra low-power wake-up radio**

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#### **A 73 to 83 GHz, 9-mW injection-locked oscillator in 65-nm CMOS technology**

Li, X., Baltus, P. G. M., van Zeijl, P., Milosevic, D. & Roermund, van, A. H. M. 2011 *IEEE proceeding of the 11th Topical Meeting on Silicon Monolithic Integrated Circuits in RF Systems (SiRF)*, 17-19 January 2011, Phoenix, Arizona USA. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 5-8

#### **A broadband and high-sensitivity frontend design for UHF RFID tag**

Ma, Q., El Waffaoui, R., Baltus, P. G. M. & Roermund, van, A. H. M. 2011 Technische Universiteit Eindhoven

#### **Antenna coupling reduction between co-located radios**

Janssen, E. J. G., Milosevic, D. & Baltus, P. G. M. 2011 blz. 1-

### **Full MIMO Spatial Filtering Approach for Dynamic Range Reduction in Wideband Cognitive Radios**

Heuvel, van den, J. H. C., Linnartz, J. P. M. G., Baltus, P. G. M. & Gabric, D. 2011 *Proceedings of the 21st Annual International Symposium on Personal Indoor and Mobile Radio Communications 2010 (PIMRC), 26-30 September 2010, Istanbul*.

### **Increasing isolation between co-located antennas using a spatial notch**

Janssen, E. J. G., Milosevic, D., Herben, M. H. A. J. & Baltus, P. G. M. 2011 In : *IEEE Antennas and Wireless Propagation Letters*. 10, blz. 552-555 4 blz.

### **Integrated 60GHz RF Beamforming in CMOS**

Yu, Y., Baltus, P. G. M. & Roermund, van, A. H. M. 2011 Dordrecht: Springer. 150 blz. (Analog circuits and signal processing series)

### **Low power LNA for 60GHz asynchronous wake-up radio**

Gao, H., Baltus, P. G. M., Matters - Kammerer, M., Milosevic, D. & Roermund, van, A. H. M. 2011 *Proceedings of the 22nd ProRISC, Annual Workshop on Circuits, Systems and Signal Processing (ProRISC 2011)*. Utrecht, the Netherlands: Technology Foundation

### **Modeling and analysis of nonlinearities and bandwidth limitations in RF receivers**

Janssen, E. J. G., Milosevic, D., Baltus, P. G. M. & Habibi, H. 2011 *Proceedings of the IEEE International Symposium on Circuits and Systems (ISCAS), 15 - 18 May 2011, Rio de Janeiro, Brazil*. Rio de Janeiro: Institute of Electrical and Electronics Engineers (IEEE), blz. 1836-1839

### **System study of a 60 GHz wireless-powered monolithic sensor system**

Wu, Y., Linnartz, J. P. M. G., Gao, H., Baltus, P. G. M. & Bergmans, J. W. M. 2011 *8th International conference on Information, Communications, and Signal Processing (ICICS 2011), 13-16 December 2011, Singapore*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1-5

### **The Effect of RMS Delay Spread on Spatial Filtering**

Heuvel, van den, J. H. C., Linnartz, J. P. M. G. & Baltus, P. G. M. 2011 *Proceedings of the 32nd WIC Symposium on Information Theory in the Benelux First Joint WIC/IEEE SP Symposium on Information Theory and Signal Processing in the Benelux (WICSP2011), 10-11 May 2011, Brussels*. Institute of Electrical and Electronics Engineers (IEEE)

### **2.4GHz energy harvesting for ultra low power radio**

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Baltus, P. G. (Hoofdspreker)

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Baltus, P. G. (Organisator)  
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**Projecten**