# 37th WIC Symposium on Information Theory in the Benelux

# 6th joint WIC/IEEE SP Symposium on Information Theory and Signal Processing in the Benelux

**Thursday May 19, 2016**

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| 09:00-09:30 | Welcome and registration |
| 09:30-09:35 | Opening |
| 09:35-10:20 | **Invited keynote talk:** *Random matrix theory for signal processing* <br> **Xavier Mestre** (CTTC, Telecommunications Technological Center of Catalonia, Barcelona) |
| 10:20-10:45 | Coffee break |
| 10:45-12:35 | **Oral session T1** |

- *Delay Performance Enhancement for DSL Networks through Cross-Layer Optimization*, **Jeremy Van den Eynde**, Jeroen Verdyck, Chris Blondia, Marc Moonen
- *Analysis of Modulation Techniques for SWIPT with Software Defined Radios*, **Steven Claessens**, Ning Pan, Mohammad Rajabi, Sofie Pollin, Dominique Schreurs
- *Joint Multi-objective Transmit Precoding and Receiver Time Switching Design for MISO SWIPT Systems*, **Nafiseh Janatian**, Ivan Stupia, Luc Vandendorpe

*Short break (11:45-11:55)*

- *Target detection for DVB-T based passive radars using pilot subcarrier signal, **Osama Mahfoudia**, François Horlin, Xavier Neyt*
- *Noise Stabilization with Simultaneous Orthogonal Matching Pursuit, **Jean-François Determe**, Jérome Louveaux, Laurent Jacques, François Horlin*

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| 12:40-13:30 | Lunch |
| 13:30-15:30 | **Social event** at the *Musée Hergé* |
| 15:30-17:10 | **Oral session T2** |

- *Camera Motion for Deblurring*, **Bart Kofoed**, Peter H.N. de With, Eric Janssen
- *Person-Independent Discomfort Detection System for Infants*, **C. Li**, S. Zinger, W. E. Tjon a Ten, P. H. N. de With
- *Wavelet-based coherence between large-scale resting state networks: neurodynamics marker for autism?*, **Antoine Bernas**, Svitlana Zinger, Albert P. Aldenkamp
- *TouchSpeaker, a Multi-Sensor Context-Aware Application for Mobile Devices*, **Jona Beysens**, Alessandro Chiumento, Sofie Pollin, Min Li
- *A Non-Convex Approach to Blind Calibration from Linear Sub-Gaussian Random Measurements*, **Valerio Cambareri**, Laurent Jacques

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| 17:10-17:15 | Coffee break (extending over the poster session) |
| 17:15-18:45 | **Poster session P** |

- *Effect of power amplifier nonlinearity in Massive MIMO: in-band and out-of-band distortion*, **Steve Blandino**, Claude Desset, Sofie Pollin, Liesbet Van der Perre
- *Bandwidth Impacts of a Run-Time Multi-sine Excitation Based SWIPT*, **Ning Pan**, Mohammad Rajabi, Dominique Schreurs, Sofie Pollin
- *Generalized Optimal Pilot Allocation for Channel Estimation in Multicarrier Systems*, **François Rottenberg**, François Horlin, Eleftherios Kofidis, Jérôme Louveaux
- *Co-existence of Cognitive Satellite Uplink and Fixed-Service Terrestrial*, **Jeevan Shrestha**, Luc Vandendorpe
- *Low-Complexity Laser Phase Noise Compensation for Filter Bank Multicarrier Offset-QAM Optical Fiber Systems*, **Trung-Hien Nguyen**, Simon-Pierre Gorza, Jérôme Louveaux, François Horlin

| 17:15-18:45 (continued) | • *8-state unclonable encryption*, **Boris Skoric** |
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| | • *Optimizing the discretization in Zero Leakage Helper Data Systems*, **Taras Stanko**, Fritria Nur Andini, Boris Skoric |
| | • *Zero-Leakage Multiple Key-Binding Scenarios for SRAM-PUF Systems Based on the XOR-Method*, **Lieneke Kusters**, Tanya Ignatenko, Frans M.J. Willems |
| | • *Localization in Long Range Communication Networks Based on Machine Learning*, **Hazem Sallouha**, Sofie Pollin |
| | • *Privacy-Preserving Alpha Algorithm for Software Analysis*, **Gamze Tillem**, Zekeriya Erkin, Reginald Lagendijk |
| | • *A framework for processing cardiac signals acquired by multiple unobtrusive wearable sensors*, **Attila Para**, Silviu Dovancescu, Dan Stefanoiu |
| | • *Proof of the Median Paths*, **Thijs Veugen** |
| | • *Enhancing privacy of users in eID schemes*, **Kris Shrishak**, Zekeriya Erkin, Remco Schaar |

| 18:45-19:30 | General assembly |
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| 19:30- | Departure to dinner at *Brasserie RN* |

## Friday May 20, 2016

| 09:00-09:30 | Welcome and registration |
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| 09:30-10:30 | **Oral session F1** |
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| | • *A Privacy-Preserving GWAS Computation with Homomorphic Encryption*, **Chibuike Ugwuoke**, Zekeriya Erkin, Reginald Lagendijk |
| | • *Security Analysis of the Authentication of Classical Messages by an Arbitrated Quantum Scheme*, **Helena Bruyninckx**, Dirk Van Heule |
| | • *Fighting asymmetry with asymmetry in Reverse Fuzzy Extractors*, **Taras Stanko**, Boris Skoric**, André Schaller, Stefan Katzenbeisser |

| 10:30-10:55 | Coffee break |
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| 10:55-11:55 | **Oral session F2** |
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| | • *Linear Cryptanalysis of Reduced-Round Speck*, **Daniël Bodden**, Tomer Ashur |
| | • *An Efficient Privacy-Preserving Comparison Protocol in Smart Metering Systems*, **Majid Nateghizad**, Zekeriya Erkin, Reginald Lagendijk |
| | • *Security Analysis of the Drone Communication Protocol: Fuzzing the MAVLink protocol*, **Karel Domin**, Eduard Marin, Iraklis Symeonidis |

| 12:00-13:00 | Lunch |
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| 13:00-13:45 | **Invited keynote talk:** *Exploratory data mining: an information-theoretic perspective* |
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| | **Tijl De Bie** (Universiteit Gent, Electronics and Information System & University of Bristol) |

| 13:45-14:10 | Coffee break |
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| 14:10-15:30 | **Oral session F3** |
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| | • *Parallel optimization on the Entropic Cone*, **Benoît Legat**, Raphaël M. Jungers |
| | • *Compute-and-forward on the Multiple-access Channel with Distributed CSIT*, **Shokoufeh Mardani**, Jasper Goseling |
| | • *Autoregressive Moving Average Graph Filter Design*, **Jiani Liu**, Elvin Isufi, Geert Leus |
| | • *Greedy Gossip Algorithm with Synchronous Communication for Wireless Sensor Networks*, **Jie Zhang**, Richard C. Hendriks, Richard Heusdens |

| 15:30- | **Award ceremony** and farewell drink |
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