



# 2018 Symposium on Information Theory and Signal Processing in the Benelux

31 May, 1 June, 2018

University of Twente, Enschede, The Netherlands

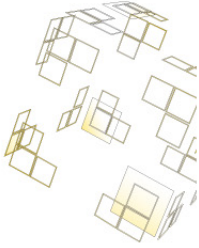
Venue: Hotel De Broeierd-Enschede

<https://www.utwente.nl/en/eemcs/sitb2018/>

## PROGRAM

For details, see next pages

### Thursday, 31 May

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- 10.00-10.55 Registration
  - 10.55-11.00 Opening
  - 11.00-12.20 Oral Session 1
  - 12.20-13.15 Lunch
  - 13.15-14.00 Keynote 1
  - 14.00-14.15 Break
  - 14.15-15.35 Oral Session 2
  - 15.35-15.45 Break
  - 15.45-16.30 Poster Session 1
  - 16.30-17.30 WIC General Assembly
  - 17.45-21.00 Social Event + dinner

### Friday, 1 June

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- 9.00- 9.30 Coffee
  - 9.30-10.30 Keynote 2
  - 10.30-10.50 Break
  - 10.50-12.10 Oral Session 3
  - 12.10-13.00 Lunch
  - 13.00-13.45 Poster Session 2
  - 13.45-14.00 Break
  - 14.00-15.20 Oral Session 4
  - 15.20-15.40 Drinks
  - 15.40-16.00 Awards & Closure

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## Thursday 31 May, 2018

10.00-10.55 Registration

10.55-11.00 Opening

11.00-12.20 Oral Session 1

Long range IoT connections: experimental confirmation of the energy drain and exploration of escape routes

*Gilles Callebaut, Geoffrey Ottoy, Guus Leenders, Lieven De Strycker and Liesbet Van der Perre*

Social diversity for reducing the impact of information cascades on social learning

*Fernando Rosas, Kwang-Cheng Chen and Deniz Gündüz*

Zero Secrecy Leakage for Multiple Enrollments of Physical Unclonable Functions

*Lieneke Kusters, Onur Günlü and Frans M.J. Willems*

Operational Rate-Constrained Noise Reduction for Generalized Binaural Hearing Aid Setups

*Jamal Amini, Richard C. Hendriks, Ricahrd Heusdens, Meng Guo and Jesper Jensen*

12.20-13.15 Lunch

13.15-14.00 Keynote 1

Deep Learning for Multimedia

*Marcel Worring, University of Amsterdam*

14.15-15.35 Oral Session 2

Quantum Key Recycling with noise

*Daan Leermakers and Boris Škorić*

Feasibility of Colonic Polyp classification with CNN based on Blue Light and Linked Color Imaging

*R. Fonollà, F. van der Sommen, R.M. Schreuder, E.J. Schoon and P. H.N de With*

Effect of Splitter & Combiner Non-Idealities in mm-wave Hybrid MU-MIMO System

*Abhijeet Kanitkar, Steve Blandino, Claude Dessel, André Bourdoux, Sofie Pollin*

Distributed Edge-Variant Graph Filters

*Mario Coutino, Elvin Isufi and Geert Leus*

15.35-15.45 Break

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15.45-16.30 Poster Session 1

Maximum Likelihood Decoding for Channels with Uniform Noise and Offset

*Renfei Bu and Jos Weber*

Calculation of the Mean Strain of Non-uniform Strain Fields Using Conventional FBG Sensors

*Aydin Rajabzadeh, Richard C. Hendriks, Roger M. Groves and Richard Heusdens*

Estimating Source-to-Electrode Transfer Functions in Atrial Electrograms

*Bahareh Abdi, Richard C. Hendriks, Alle-Jan van der Veen and Natasja M.S. de Groot*

Video Quality Assessment in Video Streaming Services: Encoder Performance Comparison

*Rufat Alizada*

The Behavior of Principal Component Analysis (PCA) and Linear Discriminant Analysis (LDA) for Face Recognition

*Nova Hadi Lestriandoko, Luuk Spreeuwers and Raymond Veldhuis*

Enabling Transmit Diversity in a Distributed Architecture for IEEE 802.11p

*Lars van Meurs, Arie Koppelaar, Alessio Filippi and Marinus van Splunter*

A Novel Low-Complexity Robust Distributed Beamformer

*Andreas I. Koutrouvelis, Thomas W. Sherson, Richard Heusdens and Richard C. Hendriks*

PUF-Enabled Asymmetric Cryptography

*R. Uppu, T.A.W. Wolterink, S.A. Goorden, B.C. Chen, B. Škorić, A.P. Mosk and P.W.H. Pinkse*

Fingerprint template protection with spectral minutia-pair representations

*Taras Stanko, Bin Chen and Boris Škorić*

Secure comparison through simple bit operations

*Thijs Veugen*

16.30-17.30 WIC General Assembly

17.45-21.00 Social Event + dinner

The bus for the social event + dinner leaves at 17.45 sharp from hotel The Broeierd, so if you want to join, please gather at the entrance of the hotel. We will return by bus around 21.00.

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## Friday 1 June, 2018

9.00- 9.30 Coffee/thee

9.30-10.30 Keynote 2

How Reliability, Latency, Massiveness, and Blockchain are Transforming IoT Communication  
*Petar Popovski, Aalborg University*

10.30-10.50 Break

10.50-12.10 Oral Session 3

Improved BER Performance of Hard-decision Staircase Code via Geometric Shaping  
*Yi Lei, Bin Chen and Alex Alvarado*

Particle Filter-based Parameter Estimation in a Model of the Human Circadian Rhythm  
*Jochem Bonarius and Jean-Paul Linnartz*

A Blockchain-based Signature Scheme for Dynamic Coalitions  
*Ricky A. Sewsingh, Jan C.A. Van der Lubbe and Merel J. De Boer*

Wireless Channel Modeling for Low-altitude UAV Networks in Urban Environments  
*Jianqiao Cheng, Ke Guan and François Quitin*

12.10-13.00 Lunch

13.00-13.45 Poster Session 2

On the Effect of Polarization for Reliable Massive MIMO Communication  
*Sara Gunnarsson, Jose Flordelis, Liesbet Van der Perre and Fredrik Tufvesson*

Gabor Expansion for Simultaneous Wireless Power and Information Transfer (SWIPT): Interference Analysis  
*Hussein Kassab and Jérôme Louveaux*

Rate-Distributed Spatial Filtering Based Noise Reduction in Wireless Acoustic Sensor Networks  
*Jie Zhang, Richard Heusdens and Richard C. Hendriks*

Measurement-based Assessment of Noise Sources in Office and Household Environments Impacting Ultrasound Indoor Positioning  
*Chesney Buyle, Bert Cox and Liesbet Van der Perre*

Region of interest segmentation of VLE data using CNN and weighted groundtruth  
*Joost van der Putten, Fons van der Sommen, Maarten R. Struyvenberg, Jeroen de Groof, Wouter Curvers, Jaques J.J.G.H.M. Bergman and Peter H.N. de With*

The coset leader weight enumerator of the product code  $[m, m - 1, 2]_q \otimes [n, n - 1, 2]_q$   
*Putranto Utomo and Ruud Pellikaan*

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A Prototype of Finger-vein Phantom

*P. Normakristagaluh, L.J. Spreeuwers and R.N.J. Veldhuis*

On Constellation Shaping for Short Block Lengths

*Y.C. Gültekin, W.J. van Houtum and F.M.J. Willems*

Round Robin Differential Phase Shift QKD security proof

*Daan Leermakers and Boris Škorić*

13.45-15.20 Break

14.00-15.20 Oral Session 4

Distributed adaptive signal estimation in wireless sensor networks with noise in the exchanged signals

*Fernando de la Hucha Arce, Marc Moonen, Marian Verhelst, Alexander Bertrand*

Breaking Out of the Black Box in Automated Image-Based Flower Recognition

*Diah Harmony Apriyanti, Luuk Spreeuwers and Raymond Veldhuis*

Capacity of the First-Order Low-Pass Channel with Power Constraint

*Shokoufeh Mardani and Jean-Paul Linnartz*

A Quantum Key Recycling Scheme based on qubits

*Helena Bruyninckx*

15.20-15.40 Drinks

15.40-16.00 Awards & Closure