

## SITB2021 PROGRAM

### THURSDAY MAY 20

09:45	Opening
10:00-11:00	<b>Invited talk by Nir Shlezinger</b> <i>Model-based deep learning in signal processing and communications</i>
11:15-12:30	<b>Oral session 1A: Machine Learning</b>
11:15	<i>Contextual pyramid attention network for building segmentation in aerial imagery.</i> C. Sebastian, Raffaele Imbriaco, E. Bondarev, P. de With (TU/e)
11:40	<i>Analyzing InfoGAN's potential for exploring demographic information in facial images.</i> Zohra Rezgui, J. Goseling, R. Veldhuis (UTwente)
12:05	<i>Can fake news detection be accountable? The adversarial examples challenge.</i> Jeremie Bogaert, Q. Carbonelle, A. Descampe, F.-X. Standaert (UCL)
12:30-14:00	<b>Lunch break and Poster Session 1</b>
14:00-14:50	<b>Oral session 1B</b>
14:00	<i>Learning robust image representations with autoencoders</i> Shunxin Wang, N. Strisciuglio, R. Veldhuis (UTwente)
14:25	<i>Wasserstein generative adversarial privacy</i> Kars Mulder, J. Goseling (UTwente)
15:15-16:55	<b>Oral session 2: Biometrics and biomedics</b>
15:15	<i>Finger vein verification with an autoencoder</i> Tugce Arican, R. Veldhuis, L. Spreeuwers (UTwente)
15:40	<i>Unsupervised decoding of matched versus mismatched EEG responses to speech</i> Nicolas Heintz, T. Francart, A. Bertrand (KUL)
16:05	<i>Compressed ultrasound reconstruction through jointly learned analog-to-digital conversion and adaptive beamforming</i> Ben Luijten (TU/e) et al.
16:30	<i>Identification method using intensity of finger joints in NIR images</i> Muriel van der Spek, L. Spreeuwers (UTwente)
17:15	<b>WIC General Assembly</b>

**FRIDAY MAY 21**

09:50	Opening
10:00-11:00	<b>Invited talk by Slava Voloshynovskiy</b> <i>Information Bottleneck through variational glasses</i>
11:15-12:30	<b>Oral session 3A: Communication</b>
11:15	<i>Energy dispersion index for finite-length probabilistic shaping by 4D signaling</i> Kaiquan Wu, G. Liga, Y. Gültekin, A. Alvarado (TU/e)
11:40	<i>On some signal processing myths in optical wireless communications</i> Jean-Paul Linnartz, Xiong Deng (TU/e)
12:05	<i>SWIPT waveform design: Phase optimization for a rectangular power pulse superposed with CP-OFDM</i> Hussein Kassab, J. Louveaux (UCL)
12:30-14:00	<b>Lunch break and Poster Session 2</b>
14:00-14:50	<b>Oral session 3B</b>
14:00	<i>Keeping up with the bits: tracking physical layer latency in millimeter-wave Wi-Fi networks</i> Alexander Marinšek and L. Van der Perre (KUL)
14:25	<i>Spectrum sensing in mobile Cognitive Radio: A Bayesian changepoint detection approach</i> Akpaki Chede (UCL), F. Rottenberg, M. Dossou, J. Louveaux
15:15-16:55	<b>Oral session 4: Coding and signal processing</b>
15:15	<i>Unclonable encryption with key recycling using qubits</i> Daan Leermakers, B. Skoric (TU/e)
15:40	<i>Node varying regularization for graph signals</i> Maosheng Yang, M. Coutino, E. Isufi, G. Leus (TU Delft)
16:05	<i>Decoding of concatenated codes for noisy channels with unknown offset</i> Renfei Bu, J. Weber (TU Delft)
16:30	<i>A primer on Techtile: An R&amp;D testbed for distributed communication, sensing and positioning</i> Gilles Callebaut, J. Van Mulders, G. Ottoy, L. Van der Perre (KUL)
17:15	<b>Awards</b> Best student paper award. Best student presentation award.
	Closing

## POSTER SESSION 1

Thursday May 20

P01	Robust Local Differential Privacy	Milan Lopuhaa-Zwakenberg (TU/e), Jasper Goseling (UTwente)
P02	Distributed Estimation of Common Signal Components across the Nodes of a Sensor Network	Charles Hovine (KUL)
P03	A Comparative Study of Vision and AES in FHE Setting	Dilara Toprakhisar, Tomer Ashur (TUE)
P04	Improved Bit-mappings for IEEE 802.11 LDPC Codes with Applications to Amplitude Shaping	Yunus Gultekin, A. Alvarado, FM.J. Willems (TU/e)
P05	Power loading strategy under per-LED power constraint for LED-based MIMO Optical Wireless Communication systems	Thiago Bitencourt, X. Deng, J.P. Linnartz (TU/e)
P06	AnonImMed: An Open-Source Tool for Fast Anonymization of Medical Images	Sander Klomp, R.G.J. Wijnhoven, P.H.N. de With (TU/e)
P07	Orthogonal Time Frequency Space Modulation: Implementation and Constraints	Franz Lampel, F.M.J. Willems (TU/e)
P08	On the SNOW Ciphers	Liliya Kralewa, Chaoyun Li (KUL)

---

## POSTER SESSION 2

Friday May 21

P09	Deep Adaptive Beamforming for Photoacoustic Computed Tomography	Joep van de Weem, R. van Sloun (TU/e)
P10	Tracklet-based Vessel Re-identification for Multi-Camera Vessel-Speed Enforcement	Herman Groot, M.H. Zwemer, Y. Bondarev, R.G.J. Wijnhoven, P.H.N. de With (TU/e)
P11	Reducing Transmit Power by Optimizing the Location of Distributed Antenna Arrays	Yi-Hang Zhu, L. Monteyne, G. Callebaut, F. Rottenberg, L. Van der Perre (KUL)
P13	Predicting co-existence of sources through self-supervised Contrastive Predictive Coding to reveal underlying structures during sleep	Iris Huijben, L. Hermans, M. van Gilst, R. van Sloun, S. Overeem (TU/e)
P14	High resolution fast 3D ultrasound imaging with deep learning based adaptive beamforming	Boudewine Ossenkoppele (TU Delft), B. Luijten, D. Bera, N. de Jong, R.J.G. van Sloun, M.D. Verweij
P15	Quantum signatures with smaller keys	Boris Skoric (TU/e)
P16	Performance analysis of IEEE 802.15.4 networks under various Wi-Fi Interference patterns.	C. Papatsimpa, J.P. Linnartz (TU/e)