### **Topic: Reconfigurable Intelligent Surface**

- 1 Does a Large Reconfigurable Intelligent Surface Eliminate Channel Correlation? Kuang-Hao (Stanley) Liu
- 2 Stochastic Reformulation for Discrete Optimization: RIS-aided Communication System Insights
  Anish Pradhan and Harpreet S. Dhillon
- 3 Intelligent Reflecting Surface Aided Generalized Spatial Modulation Millimeter-wave Massive MIMO System Chia-Chang Hu and Tsung-Hsin Hsu
- 4 Quantifying the Available Geometric Information in Signals Reflected by RIS Don-Roberts Emenonye, Harpreet S. Dhillon, and R. Michael Buehrer
- 5 LSTM-based Precoding for RIS-assisted MIMO Systems with Implicit CSI Po-Heng Chou, Jiun-Jia Wu, Chin-Tang Chen, Wan-Jen Huang, Yu Tsao, and Ronald Y. Chang

#### **Topic: Massive MIMO and Connectivity**

- **6** Bayesian Activity Detection for Massive Connectivity in Cell-free IoT Networks Hao Zhang, Qingfeng Lin, Yang Li, Lei Cheng, and Yik-Chung Wu
- 7 Sub-band Precoding for Massive MIMO-OFDM Systems Kelvin Kuang-Chi Lee and Chiao-En Chen
- 8 Completely-blind Efficient Receiver for Asynchronous Massive Grant-Free NOMA Takanori Hara and Koji Ishibashi
- 9 Practical Grant-free NOMA Based on Low-density Structured OFDM Kohei Ueda, Takanori Hara, and Koji Ishibashi
- 10 Semantic Queries for Massive IoT Anders E. Kalør, Kaibin Huang, and Petar Popovski

#### **Topic: Antenna and Receivers**

- 11 Low Complexity MRC Detector for Oversampling OTFS Receiver Preety Priya, Emanuele Viterbo, and Yi Hong
- 12 Physical Beam Sharing Systems and Over-the-air Measurements Yan-Yin He, Hsiao-Chien (Angie) Chen, and Shang-Ho (Lawrence) Tsai
- 13 Satellite Communications with Hybrid Array Architecture for Beam Squint Compensation Heedong Do, Namyoon Lee, Robert W. Heath Jr., and Angel Lozano
- 14 Dual Function Radar Communication and Screaming Channels: a Pre-study Maria De Lauretis, Emil Nilsson, Per Sandrup, Elena Haller, and Mark Dougherty

#### **Topic: Localization**

- 15 Localizability in Vision-based Positioning: Point Process Perspective and Connections to Communication Theory Haozhou Hu, Harpreet S. Dhillon, and R. Michael Buehrer
- 16 Enhancing WiFi Access Point Localization with Al-based Filtering Wan-Ting Shih, Cheng-Yu Yang, Chao-Kai Wen, and Shang-Ho Tsai
- 17 Virtual Near-field Signal Estimation for Improved Access Point Localization Shang-Ling Shih and Chao-Kai Wen
- 18 NTN-based 6G Localization: Vision and Role of LEOs Harish K. Dureppagari, Chiranjib Saha, Harpreet S. Dhillon, and R. Michael Buehrer

## **Topic: Coding**

- 19 A Modified Syndrome-based Binary BP Decoding for Quantum LDPC Codes Tzu-Hsuan Huang and Yeong-Luh Ueng
- 20 Design of PAC Codes for SCL Decoding Mao-Ching Chiu and Yi-Sheng Su

# **Topic: Coding**

- 21 Massage Passing Decoding for Linear Block Codes Po-an Chu and Huang-Chang Lee
- **22** DL-aided SCLF-2 Decoding for Polar Codes based on Stacked LSTM Model Shan Lu, Fu-Siang Liang, Ku Hsuan, and Yeong-Luh Ueng

### **Topic: Communication Theory**

- 23 On the Minimization of CCDF of Cramér–Rao Lower Bound for Hybrid RF/FSO Angle-of-arrival Tracking Ming-Cheng Tsai, Muhammad Salman Bashir, and Mohamed-Slim Alouini
- 24 Achievable Information Rates for Channels with In-band Crosstalk Chunpo Pan, Zhiping Jiang, Chuandong Li, and Zhuhong Zhang
- 25 Lightweight Decentralized Community Detection Achieving Exact Recovery for Sparse Graphs Yu-Cheng Hsiao and I-Hsiang Wang
- 26 Markov Modeling for Licensed and Unlicensed Band Allocation in D2D Networks Po-Heng Chou and Wei-Chang Chen

### **Topic: Al-driven Communications**

- 27 Training Design Based on Cross Z-complementary Pair and Its Mate for Generalized Spatial Modulation Chen Hu, Zhen-Ming Huang, and Chao-Yu Chen
- 28 Model-driven Neural Network Based MIMO Channel Estimator via Eigenmode Representation Carrson C. Fung and Dmytro Ivakhnenkov
- 29 Determinantal Learning for Subset Selection in Cellular Networks Xiangliu Tu, Chiranjib Saha, and Harpreet S. Dhillon
- 30 UAV-assisted Over-the-air Federated Learning Kai-Chieh Hsu, Ming-Chun Lee, and Y.-W. Peter Hong

# **Topic: Emerging Networks**

- 31 Digital Twin Enabled Management Architecture in 6G Deterministic Networks Shih-Fan Chou, Yu-Hsuan Wang, Ying Chen, and Ching-Chih Pan
- 32 Designing a Text-based CAPTCHA to Distinguish Humans from ChatGPT Kuo-Yu Liao and Cheng-Shang Chang
- **33** Power-saving Framework for 6G Networks with Integrated Time-frequency Domain Operations Kuang-Hsun Lin and Hung-Yu Wei
- 34 On Waveform Design Principle for ISAC Hai Lin and Jinhong Yuan

#### **Topic: Networking**

35 An FPGA-based Second Frequency Moment Estimation Accelerator for 100Gbps High-speed Network Traffic Analysis Hsiang-Lun Hua and Yu-Kuen Lai

### **Topic: Surveillance**

- **36** On-demand Image Capture and Wireless Delivery Task for Surveillance UAVs Nguyen Van Cuong, Y.-W. Peter Hong, and Jang-Ping Sheu
- 37 Illegal Parking Detection Based on Deep Learning for Video Surveillance Meng-Wei Lin, Chien-Hao Tseng, Jyh-Horng Wu, and Mei-Ya Chung