Date Time	2019/10/20	2019/10/21	2019/10/22	2019/10/23	2019/10/24
9:00-9:20		Opening Remark	Keynote Speech 2	Keynote Speech 3	Session 7 (4 Papers)
9:20-10:00 10:00-10:20		Keynote Speech 1	Coffee Break	Coffee Break	
10:20-10:40		Coffee Break	Session 3 (6 Papers)	Session 4 (6 Papers)	Coffee Break
10:40-12:20		Session 1 (5 Papers)			Session 8 (5 Papers)
12:20-13:40	Registration	Lunch			
13:40-15:20		Session 2 (5 Papers)	Tour to Humen	Session 5 (5 Papers)	Session 9 (5 Papers)
15:20-15:40		Coffee Break		Coffee Break	Closing Remark
15:40-17:20		Tour to Huawei		Session 6 (5 Papers)	
17:20-18:00				Shuttle to Banquet	
18:00-20:00	Reception (Aloft)	Dinner (Aloft)	Dinner (Aloft)	Banquet (Royal Garden Hotel)	
Registration Address	Aloft	DGUT			

# **Keynote Speeches**

**Keynote Speech 1:** Distributed Inference in the Presence of Byzantines Pramod K. Varshney (Syracuse University) 9:20-10:20, Monday, Oct 21, 2019.

**Keynote Speech 2:** Recent Advances of Protocol and Schedule Sequences and their Applications Wing Shing Wong (The Chinese University of Hong Kong) 9:00-10:00, Tuesday, Oct 22, 2019.

**Keynote Speech 3:** Linear Codes from Functions Sihem Mesnager (University of Paris VIII) 9:00-10:00, Wednesday, Oct 23, 2019.

#### **Session 1: Application of Sequences (5 Papers)**

10:40-12:20, Monday, Oct 21, 2019

- 1-1. Jiahuan Wang, Pingzhi Fan, Zhengchun Zhou and Yang Yang. Doppler Resilient Sequences with Low Local Ambiguity Functions for Fully Polarimetric Radar Systems
- 1-2. Takeru Miyazaki, Shunsuke Araki, Kohei Kawase, Satoshi Uehara and Yasuyuki Nogami. Properties of Knuth's Quadratic Congruential Sequences with Modulus m=2^W p
- 1-3. Gangsan Kim, Min Hyung Lee and Hong-Yeop Song. Some notes on the binary sequences of length 2^n-1 with the run property
- 1-4. Lanping Li, Xiaohu Tang and Chintha Tellambura. Deep Learning Based Modified Message Passing Algorithm for Sparse Code Multiple Access
- 1-5. Huan Chen, Pingzhi Fan and Li Li. Active Users Detection Based on Deterministic Sequences for Massive Connectivity

## **Session 2: Boolean and Related Functions (5 Papers)**

13:40-15:20, Monday, Oct 21, 2019

- 2-1. (Invited Paper) Sihem Mesnager and Ahmet Sinak. Strongly regular graphs from weakly regular plateaued functions
- 2-2. Nikolay Kaleyski. An Update on Known Invariants of Vectorial Boolean Functions
- 2-3. Kangquan Li, Sihem Mesnager and Longjiang Qu. Further study of \$2\$-to-\$1\$ mappings over  $F_{2^n}$ \$
- 2-4. Pingzhi Yuan. Permutation Polynomials from two piecewise functions
- 2-5. Zhengbang Zha and Lei Hu. The Boomerang Uniformity of Power Permutations  $x^{2^k-1}\$  over  $\mathbb{F}_{2^n}\$

## Session 3: Complementary and ZCZ Sequence Sets (6 Papers)

10:20-12:20, Tuesday, Oct 22, 2019

3-1. Yubo Li, Chengqian Xu and Xiuping Peng. More Quasi-Complementary Sequence Sets from Difference Sets and Almost Difference Sets

- 3-2. Yajing Zhou, Zhengchun Zhou and Yang Yang. 4<sup>q</sup>-QAM Complementary Sequence Sets with Non-Power-of-Two Length
- 3-3. Yong Wang, Tinghua Hu, Yang Yang and Zhengchun Zhou. Large Zero Correlation Zones of Golay Complementary Sets
- 3-4. Zhi Gu, Yang Yang and Zhengchun Zhou. New Sets of Even-Length Binary Z-Complementary Pairs
- 3-5. Bingsheng Shen, Yang Yang, Zhengchun Zhou and Yajing Zhou. New Constructions of Binary (Near) Complementary Sets
- 3-6. Xiuping Peng, Chengqian Xu and Yubo Li. Mismatched Binary Periodic Complementary Pairs with Period 3q

#### Session 4: Theoretical Bounds and Sequences Design (6 Papers)

10:20-12:20, Wednesday, Oct 23, 2019

- 4-1. Shibsankar Das, Udaya Parampalli, Sudhan Majhi and Zilong Liu. An Introduction to Z-Paraunitary Matrices
- 4-2. Mingxing Zhang, Zhengchun Zhou, Yang Yang and Haode Yan. Optimization Method for Designing Sequences With Low Partial-period Correlation Sidelobes
- 4-3. Peihua Li, Cuiling Fan and Yang Yang. New Bounds on the Partial Hamming Correlation of Wide-Gap Frequency-Hopping Sequence Sets
- 4-4. Hongyu Han, Limengnan Zhou and Xing Liu. New Construction for Low Hit Zone Frequency Hopping Sequence Sets with Optimal Partial Hamming Correlation
- 4-5. Bing Liu, Zhengchun Zhou and Udaya Parampalli. A Tighter Correlation Lower Bound for Quasi-Complementary Sequence Sets with Low Correlation Zone
- 4-6. Geyang Wang and Qi Wang. An OACF-Preserving Operation Based on Parker's Transformation

## **Session 5: Coding for Communications (5 Papers)**

13:40-15:20, Wednesday, Oct 23, 2019

5-1. Jerod Michel and Qi Wang. Placement Delivery Arrays from Combinations of Strong Edge Colorings

- 5-2. Hao Song, Ruihu Li and Luobin Guo. Construction of Matrix-Product Codes and related New Ouantum Codes
- 5-3. Inseon Kim and Hong-Yeop Song. A new class of parity-check concatenated polar codes using belief propagation decoding
- 5-4. Sung Chul Byun, Gangsan Kim, Won Jun Kim and Hong-Yeop Song. A Construction of Non-binary Polar codes with 4 by 4 kernels
- 5-5. Mu Hang. Iterative Successive Cancellation List Decoding in Bit-interleaved Polar Coded Modulation System

### **Session 6: Coding Theory 1 (5 Papers)**

15:40-17:20, Wednesday, Oct 23, 2019

- 6-1. Zhuojun Zhuang, Bin Dai, Keke Zhang, Zhen Jing, Jia Huang and Hao Zhu. On Asymptotic Analysis of Relative Generalized Hamming Weight
- 6-2. Wang, Li, Liu and Lv. New construction of quantum BCH Codes
- 6-3. R S Raja Durai and Ashwini Kumar. Multiple-Rate Error-Correcting Codes in  $\text{CGF}(p^{n^{2}})$
- 6-4. Jia-Jyun Wu, Chung-Hsuan Wang and Chi-Chao Chao. Decoding Scheduling for Unequal Error Protection Quasi-Cyclic Low-Density Parity-Check Codes
- 6-5. Chin Hei Chan and Maosheng Xiong. Random Matrices from Linear Codes and Wigner's Semicircle Law II

#### **Session 7: Network Coding and Storage Coding (4 Papers)**

9:00-10:20, Thursday, Oct 24, 2019

- 7-1. Shangyao Huang, Hanxu Hou and Xiangshou Yu. A Lower Bound on Disk Reads for Single Information Disk Failure Recovery and One Recovery Scheme for EVENODD(p, 3)
- 7-2. Zhi Jing, Gangsan Kim and Hong-Yeop Song. A concatenated binary locally repairable codes with locality 2 using puncturing
- 7-3. Kenneth Shum and Hanxu Hou. Network Coding Based on Byte-wise Circular Shift and Integer Addition
- 7-4. Qiaoling Zhang, Lei Zheng, Minquan Cheng and Qingchun Chen. The advantages of the Grouping Method for Repeat Requests in Coded Caching

# **Session 8: Coding Theory 2 (5 Papers)**

10:40-12:20, Thursday, Oct 24, 2019

- 8-1. Xina Zhang, Xiaoni Du, Rong Wang and Fujun Zhang. Weight Distributions of a Class of Linear Codes
- 8-2. Linman Yu, Zhuojun Zhuang, Zheng Ma and Bin Dai. Two Lower Bounds on the Secrecy Capacity of the Action-dependent Dirty Paper Wiretap Channel
- 8-3. Sota Eguchi, Takeru Miyazaki, Shunsuke Araki, Satoshi Uehara and Yasuyuki Nogami. Relations Between Evaluations of NIST tests and Lyapunov Exponents of Sequences Generated by the Piecewise Logistic Map over Integers
- 8-4. Jinchen Bao, Rong Shi, Xuehua Wang, Chang Liu, Ke Deng and Jian Yan. Performance Analysis of Uplink Sparse Code Multiple Access in Rician Fading
- 8-5. Tetsuya Kojima. Some Properties of Hadamard-type Matrices on Finite Fields

#### Session 9: Signal Processing and Computation Theory (5 Papers)

13:40-15:20, Thursday, Oct 24, 2019

- 9-1. Chao Peng, Lei Yang, Xiaomin Jiang, Yue Song and Sha Zou. A Simple Ship Radiated Noise Model and Its Application in Weak Signal Detection Based on Higher Order Cumulant
- 9-2. Yuri Borissov and Miroslav Markov. An Approach for Computing the Number of Points on Elliptic Curve  $y^2 = x^3 + a \pmod{p}$  via Explicit Formula for That Number Modulo p
- 9-3. Zhao Zhang and Sheng Zhang. Robust Weight-Constraint Decorrelation Normalized Maximum Versoria Algorithm
- 9-4. Sian-Jheng Lin, Ziting Gao and Yunghsiang S. Han. Arithmetic Coding Based on Reflected Binary Codes
- 9-5. Lei Deng. Convex Set of Doubly Substochastic Matrices