

IWSDA'17, Hokkaido, Japan - Program at a glance

Sept. 24 (Sun.)	Sept. 25 (Mon.)	Sept. 26 (Tue.)	Sept. 27 (Wed.)	Sept. 28 (Thu.)
	9:00-17:00 Registration	9:00-14:00 Registration	9:00-17:00 Registration	9:00-16:00 Registration
	9:10-9:20 Opening Remark	9:00-9:20 Coffee Break	9:00-9:20 Coffee Break	9:00-9:20 Coffee Break
	9:20-10:20 Invited Talk 1 Prof. Wai Ho Mow Char: Hideyuki Torii	9:20-10:40 Session 4 Sequence design and analysis of sequences (1) Char: Junru Zheng	9:20-10:20 Invited Talk 2 Prof. Yoichi Shinoda Char: Tetsuya Kojima	9:20-10:20 Invited Talk 3 Prof. Rafal Rzepka Char: Naofumi Aoki
	10:20-10:40 Coffee Break	10:40-11:00 Coffee Break	10:20-10:40 Coffee Break	10:20-10:40 Coffee Break
	10:40-12:20 Session 1 Complementary sequences and Z-complementary sequences Char: Hideyuki Torii	11:00-12:20 Session 5 Communication system (1) Char: Yuta Ida	10:40-12:00 Session 6 Perfect sequences and ZCZ sequences Char: Satoshi Uehara	10:40-12:20 Session 9 Sequence design and analysis of sequences (2) Char: Shunsuke ARAKI
	12:20-13:40 Lunch	12:20-14:00 Lunch	12:00-13:40 Lunch	12:20-13:40 Lunch
14:00-17:00 Registration	13:40-15:00 Session 2 Communication theory Char: Takahiro Matsumoto		13:40-15:00 Session 7 Other applications of sequences Char: Hiromasa Habuchi	13:40-14:20 Session 10 Invited Talk 4 Prof. Yunghsiung S. Han Char: Pingzhi Fan
17:00-19:00 Welcome Reception	15:00-15:20 Coffee Break		15:00-15:20 Coffee Break	14:20-14:40 Coffee Break
	15:20-16:40 Session 3 Image and acoustic signal processing Char: Kazuyoshi Tsuchiya		15:20-16:40 Session 8 Communication system (2) Char: Takeru Miyazaki	14:40-15:40 Session 10 Coding theory Char: Tetsuya Kojima
			18:00- Conference Banquet	15:40-15:50 Closing Remark

Invited Talks

- 1. Aperiodic sequence design and McEliece's open problem**
Prof. Wai Ho Mow (Hong Kong University of Science and Technology)
9:20 – 10:20, Monday, Sept. 25
- 2. StarBED The Emulator - From ICT into IoT -**
Prof. Yoichi Shinoda (Japan Advanced Institute of Science and Technology)
9:20 – 10:20, Wednesday, Sept. 27
- 3. From Signals, through Words, to Safe Behavior - Value Alignment by Human Experience Analysis**
Prof. Rafal Rzepka (Hokkaido University)
9:20 – 10:20, Thursday, Sept. 28
- 4. Novel FFT over Binary Finite Fields and Its Application to Reed-Solomon Erasure Codes**
Prof. Yunghsiang S. Han (Dongguan University of Technology)
13:40 – 14:20, Thursday, Sept. 28

Session 1 : Complementary sequences and Z-complementary sequences

10:40–12:20, Monday, Sept. 25

1-1. Constructions of Gaussian Integer Z-Periodic Complementary Sequence Sets

Xiaoyu Chen, Yubo Li, Xiuping Peng, Hongbin Lin (Yanshan University, China)

1-2. A New Method to Construct Golay Complementary set and Near-Complementary set by Paraunitary Matrices

Dongxu Ma, Zilong Wang (Xidian University, China), Guang Gong (University of Waterloo, Canada), Hui Li (Xidian University, China)

1-3. New Optimal Binary Z-Complementary Pairs of Odd Lengths

Avik R. Adhikary, Sudhan Majhi (Indian Institute of Technology, India), Zilong Liu, Yong Liang Guan (Nanyang Technological University, Singapore)

1-4. Doppler Resilient Z-complementary Waveforms From ESP Sequences

Jiahuan Wang, Pingzhi Fan, Yang Yang (Southwest Jiaotong University, China), Zilong Liu, Yong Liang Guan (Nanyang Technological University, China)

1-5. A Method to Construct Complementary Sets of Non-Power-of-Two Length by Concatenation

Zilong Wang, Erzhong Xue, Jinjin Chai (Xidian University, China)

Session 2 : Communication theory

13:40-15:00, Monday, Sept. 25

2-1. Raptor Decoding for High Overloaded Wireless Super-Dense Networks

I Nyoman Apraz RAMATRYANA, Khoirul ANWAR (Telkom University, Indonesia)

2-2. An Opportunistic-Bit Transmission Scheme With Enhanced Spectral Efficiency

Yingyang Chen, Mingxi Yin, Bingli Jiao (Peking University, China)

2-3. Capacity Results on the Multiple-Access Wiretap Channel with Noiseless Feedback

Bin Dai (Southwest JiaoTong University, China)

2-4. A Theoretical Analysis of Visible-Light Variable N-parallel Code-Shift-Keying in LOS Indoor Environments

Keisuke Osawa, Hiromasa Habuchi, Yusuke Kozawa (Ibaraki University, Japan)

Session 3 : Image and acoustic signal processing

15:20–16:40, Monday, Sept. 25

3-1. Reinhard's Global Operator Based Inverse Tone Mapping with One Parameter

Yuma Kinoshita, Sayaka Shiota, Hitoshi Kiya (Tokyo Metropolitan University, Japan)

3-2. Speeding up Image Identification with Visually Protected Features for JPEG Image

Kenta Iida, Hitoshi Kiya (Tokyo Metropolitan University, Japan)

3-3. Lattice Adaptive Filtering-Based Method for Acoustic Feedback Cancellation in Hearing Aids With Robustness Against Sudden Changes in the Feedback Path

Muhammad Tahir Akhtar (Nazarbayev University, Kazakhstan), Akinori Nishihara (Tokyo Institute of Technology, Japan)

3-4. On the Security of Block Scrambling-Based Image Encryption Including JPEG Distorsion against Jigsaw Puzzle Solver Attacks

Tatsuya Chuman, Hitoshi Kiya (Tokyo Metropolitan University, Japan)

Session 4 : Sequence design and analysis of sequences (1)

9:20-10:40, Tuesday, Sept. 26

4-1. Unimodular Sequences with Good Aperiodic Autocorrelation

Anatolii Leukhin, Vladimir Bezrodnyi, Nikolay Parsaev (Mari State University, Russia)

4-2. Linear Complexity of Generalized NTU Sequences

Kazuyoshi TSUCHIYA(Koden Electronics Co., Ltd., Japan), Chiaki OGAWA, Yasuyuki NOGAMI (Okayama University, Japan), Satoshi UEHARA (the University of Kitakyushu, Japan)

4-3. A Kind of Disjoint Cyclic Perfect Mendelsohn Difference Family and Its Applications in Strictly Optimal FHSs

Shanding XU, Xiwang CAO (Nanjing University of Aeronautics and Astronautics, China), Chunming TANG (Guangzhou University, China)

4-4. Linear Complexity of Pseudo Random Binary Sequence Generated by Trace Function and Legendre Symbol Over Proper Sub Extension Field

Ali Md Arshad (Okayama University, Japan), Takeru Miyazaki (The University of Kitakyushu, Japan), Shoji Heguri, Yasuyuki Nogami (Okayama University, Japan), Satoshi Uehara (The University of Kitakyushu, Japan), Robert Morelos-Zaragoza (San Jose State University, USA)

Session 5 : Communication system (1)

11:00–12:20, Tuesday, Sept. 26

5-1. The Effect of Carrier Frequency Offsets on an IDMA-UFMC System

Jui-Hsien Hsieh, Ming-Fu Tang, Mao-Chao Lin, Borching Su (National Taiwan University, Taiwan)

5-2. Coded Random Access with Simple Header Detection for Finite Length Wireless IoT Networks

Khoirul ANWAR, Juansyah, Budi SYIHABUDDIN, Nachwan Mufti ADRIANSYAH (Telkom University, Indonesia)

5-3. Impact of Framed-DOOK Optical Wireless System using Error Correcting Codes

Ran Sun, Hiromasa Habuchi, Yusuke Kozawa (Ibaraki University, Japan)

5-4. A class of two-weight and three-weight codes from a certain non-quadratic function

Guangkui Xu (Huainan Normal University, China), Xiwang Cao (Nanjing University of Aeronautics and Astronautics, China), Wei Du (Huainan Normal University, China), Gaojun Luo (Nanjing University of Aeronautics and Astronautics, China)

Session 6 : Perfect sequences and ZCZ sequences

10:40–12:00, Wednesday, Sept. 27

6-1. Constructions of Asymmetric Binary ZCZ Sequence Sets

Tao Liu, Yubo Li, Chengqian Xu, Xiaoyu Chen (Yanshan University, China)

6-2. New perfect sequences from Hellesteth-Gong sequences

Yang Yang, Yong Wang (Southwest Jiaotong University, China)

6-3. A construction of optimal generators of odd lengths for perfect sequence families

Min Kyu Song, Gangsan Kim, Hong-Yeop Song (Yonsei University, Korea)

6-4. Construction of ZCZ Huffman Sequences for Underground Multiplexing Sonar

Yoshihiro Tanada (Kyoto University, Japan), Kiminori Sato (Kagoshima University, Japan), Masato Iguchi (Kyoto University, Japan), Baiko Sai (Daiichi Institute of Technology, Japan)

Session 7 : Other applications of sequences

13:40–15:00, Wednesday, Sept. 27

7-1. Signals for Synthetic Aperture Radar

Vladimir Bezrodnyi, Anatolii Leukhin (Mari State University, Russia)

7-2. A Study on a Digital Watermarking Technique for Music Data Using Distortion Effect

Yuto Matsunaga (Hokkaido University, Japan), Tetsuya Kojima (National Institute of Technology, Japan), Naofumi Aoki, Yoshinori Dobashi, Tsuyoshi Yamamoto (Hokkaido University, Japan)

7-3. On the Host Signal Approximation for Image Data Hiding Scheme Based on Complete Complementary Codes

Tetsuya Kojima, Kakeru Kato (National Institute of Technology, Tokyo College, Japan)

7-4. Novel Authentication Scheme with Pseudorandom Sequences in the Frequency Domain of Images

Patrick VICKY, Udaya PARAMPALLI (University of Melbourne, Australia)

Session 8 : Communication system (2)

15:20–16:40, Wednesday, Sept. 27

8-1. Three Hop AF Relay Transmissions for OFDM Applying Real and Imaginary TFI Pilot Signals

Yuta Ida, Takahiro Matsumoto, Shinya Matsufuji (Yamaguchi University, Japan)

8-2. New Two-Layered Pseudo-Noise Code for Optical-Wireless Code-Shift Keying/SCDMA

Takashi Tokunaga, Hiromasa Habuchi, Yusuke Kozawa (Ibaraki University, Japan)

8-3. A Study on PAPR Reduction in OFDM Using Complex Hadamard Matrices

Zeming DONG, Shinya MATSUFUJI, Yuta IDA, Takahiro MATSUMOTO (Yamaguchi University, Japan)

8-4. Influence of ISI on Synchronous OCDMA System Using an Optical ZCZ Sequence Set on a Diffuse Channel

Takahiro MATSUMOTO, Masanori KURASHITA, Yasuaki OHIRA (Yamaguchi University, Japan), Hideyuki TORII (Kanagawa Institute of Technology, Japan), Yuta IDA, Shinya MATSUFUJI (Yamaguchi University, Japan)

Session 9 : Sequence design and analysis of sequences (2)

10:40–12:20, Thursday, Sept. 28

9-1. Semi-Bent Functions with Perfect Three-Level Additive Autocorrelation

Deng Tang, Yang Yang (Southwest Jiaotong University, China), Shaojing Fu (National University of Defense Technology, China)

9-2. A lower bound on the 2-adic complexity of Whiteman's generalized cyclotomic sequences of order 4 with length pq

Yuhua Sun (China University of Petroleum, China), Qiang Wang (Carleton University, Canada), Qiuyan Wang (Tianjin Polytechnic University, China), Tongjiang Yan (China University of Petroleum, China),

9-3. Sequence Design for Optimized Ambiguity Function and PAPR under Arbitrary Spectrum Hole Constraint

Tianjun LIU, Pingzhi FAN, Jiangdong LI, Yang YANG, (Southwest Jiaotong University, China), Zilong LIU, Yong Liang GUAN (Nanyang Technological University, Singapore)

9-4. On the Consecutive Sets of Defining Sequence for Lower Bounds on Cyclic Codes

Junru Zheng (Kyushu Women's University, Japan), Takayasu Kaida (Kindai University, Japan)

9-5. Some Properties of Z_4 Sequences Obtained by Using the Gray Code Mapping from Two Binary M-Sequences

Masahiro GOTO, Satoshi UEHARA (The University of Kitakyushu, Japan), Yasuyuki NOGAMI (Okayama University, Japan)

Session 10 : Coding Theory

14:40–15:40, Thursday, Sept. 28

10-1. A class of linear codes with two and three weights

Xiaodan Li, Xiaoni Du, Hongxia Lv, Liping Zhao (Northwest Normal University, China)

10-2. A Lower Bound on the Second-Order Nonlinearity of the Class of Maiorana-McFarland Bent Functions

Qi Gao, Deng Tang (Southwest Jiaotong University, China)

10-3. Interpretation of Polar Codes with Plotkin Construction Based on Gaussian Approximation

Jinsoo Park, Inseon Kim, Hong-Yeop Song (Yonsei University, Korea)