The second International Symposium on Sequence Design and Its Application in Communications (IWSDA'05), Shimonoseki, Japan, 10 - 14, October 2005

IWSDA'05 Programme Timetable

Monday 10-Oct
15:00-18:20 **Registration**

18:20-20:20 Welcome party at a hotel "Shimonoseki Tokyu Inn" (4F).
          Gather in front of the door in the hall "Shimonoseki convention center" (1F) at 18:20.

Tuesday 11-Oct
08:00-14:00 **Registration**

          Keynote Speech 1 (Chair: Naoki Suehiro)
08:30-09:30 On the Classification of Cyclic Hadamard Sequences
          Solomon W. GOLOMB

09:30-09:40 *Break*

          Session 1 - General Sequence Design and Analysis (I) (Chair: Jong-Seon No)
09:40-10:00 Crosscorrelation Spectra of Dillon Type Functions
          Claude CARLET, Sugata GANGOPADHYAY, Subhamoy MAITRA
10:00-10:20 Linear Complexity of Finite Field Sequences over Different Fields
          Andrew KLAPPER
10:20-10:40 Cross-Correlation between GMW and DD Sequences
          Doreen HERTEL

10:40-11:00 Coffee

          Session 2 - Sequence Bounds and Characteristics (Chair: Andrew Klapper)
11:00-11:20 Theoretical Bounds on Mismatched Sequences with Zero Correlation Zone
          Daiyuan PENG, Pingzhi FAN, Xiaohu TANG
11:20-11:40 Generalized Bounds on the Partial Periodic Correlation of Complex Roots of Unity Sequence Set
          Lifang FENG, Pingzhi FAN, Naoki SUEHIRO
11:40-12:00 T-ZCZ Sequence Set and Its Theoretical Bound
          Chao ZHANG, Xiaokang LIN, Shigeki YAMADA, Mitsutoshi HATORI
12:00-12:20 Theoretical Limits on the Frequency Hopping Sequences with Low Hit Zone
          Daiyuan PENG, Pingzhi FAN, Xiaohu TANG
12:20-12:40 On the Aperiodic and Odd Correlations of Some p-ary Sequences from Galois Rings
          San LING, Ferruh OZBUDAK

12:40-14:00 Lunch

14:00-20:00 Excursion to Shimonoseki and Moji, and Dinner at "Mojiko hotel" (6F).
          Gather in front of the door in the hall (1F) at 14:00. Two plans with four options will be prepared.

Wednesday 12-Oct
08:10-18:00 **Registration**

          Keynote Speech 2 (Chair: Wai Ho Mow)
08:30-09:30 Broadband CDMA Techniques
          Fumiyuki ADACHI

09:30-09:40 *Break*

          Section 3 - General Sequence Design and Analysis (II) (Chair: Siu Lun Ma)
09:40-10:00 Some New Perfect 8-Phase Sequences with Two Zeroes
          Evgeny I. KRENGEL
10:00-10:20 New Matrices with good Auto and Cross-Correlation
          Andrew TIRKEL, Tom HALL
10:20-10:40 Nonlinearity of Binary Sequences with Small Autocorrelation
          Nina BRANDSTATTER, Arne WINTERHOF

10:40-11:00 Coffee

          Section 4 - General Sequence Design and Analysis (III) (Chair: Udaya Parampalli)
11:00-11:20 Complete-Complementary Sequences of Different Length
          R.S.Raja DURAI, Naoki SUEHIRO, Han CHENGGAO
11:20-11:40 Generalized Hyper-Bent Functions
          Wen Ping MA, Moon Ho LEE
11:40-12:00 On Linear Complexity and Minimum Distance for Cyclic Codes by Defining Sequence with Unknown Elements
          Junru ZHENG, Takayasu KAIDA
12:00-12:20 Orthogonal Chaotic Binary Sequences Based on Walsh Functions
          Akio TSUNEDA
12:20-12:40 Quantizations of Real-Valued Self-Orthogonal Finite-Length Sequence and Their Effects on Correlation Performance
          Jiong LE, Yoshihiro TANADA

12:40-14:00 Lunch

Section 5 - ZCZ and LCZ Sequence Design and Analysis (Chair: Claude Carlet)

14:00-14:20 Enhancement of ZCZ Sequence Set Construction Procedure
Hideyuki TORII, Makoto NAKAMURA, Naoki SUEHIRO

14:20-14:40 New Sets of Optimal Binary Low Correlation Zone Sequences
Ji-Woong JANG, Jong-Seon NO, Habong CHUNG

14:40-15:00 Sets of Zero-Correlation Zone Sequence Pairs
Takafumi HAYASHI, Shinya MATSUFUJI

15:00-15:20 ZCZ Sequences Construction from Perfect Sequences Based on Interleave Technique
Xiaohu TANG

15:20-15:40 New Recursive Construction of Low Correlation Zone Sequences
Xiaohu TANG, Parampalli UDAYA

15:40-16:00 Extended ZCZ Codes for ASK-CDMA System
Shinya MATSUFUJI, Takahiro MATSUMOTO, Yoshihiro TANADA, Noriyoshi KUROYANAGI

16:00-16:20 Coffee

Section 6 - Code Construction and Evaluation (Chair: Torleiv Klove)

16:20-16:40 A Construction of Error-Correcting Signature Code
Jun CHENG, Koichi KAMOI, Yoichiro WATANABE

16:40-17:00 The Central Limit Theorem for the Normalized Sums of Extended Sliding Block Codes from Sequences of Markov Chains with Time Delay
Hiroshi FUJISAKI, Gerhard KELLER

17:00-17:20 Co-cyclic Jacket Matrices for Secure Communication
Chang-hui CHOE, Jia HOU, Seung-Je CHOI, Soon Young KIM, Moon Ho LEE

17:20-17:40 Design pai-rotation LDPC Codes on u/u+v Construction
Seung-Je CHOI, Gi Yean HWANG, Chang-hui CHOE, Jeong Soo KIM, Moon Ho LEE

17:40-18:00 Codes over Galois Extension Ring GR(q,r) Based on the Lee Metric
Katsuhiro NAKAMURA, Sawako MIKAMI

18:20-20:30 Banquet at the restaurant (7F) in Plaza Hotel Shimonoseki
Gather in front of the door in the hall at 18:20.

Thursday 13-Oct
08:10-16:00 **Registration**

Section 7 - Sequences and Communications Applications (I) (Chair: Noriyoshi Kuroyanagi)

08:40-09:00 On Cut and Paste Method to Make Pseudo-Periodicity for OFDM
Naoki SUEHIRO

09:00-09:20 Binary ZCZ Code from an M-sequence and Its Application to CS-CDMA/CP
Nalin S. WEERASINGHE, Takeshi HASHIMOTO

09:20-09:40 Enhancing Data Throughput and Lower Correlations Quasi Orthogonal Functions for 3G CDMA Systems
Jia HOU, Moon Ho LEE

09:40-10:00 Self-Orthogonal Finite-Length Sequences and Their Application to Quasi-Synchronous CDMA System With Interferences Suppressed
Yoshihiro TANADA

10:00-10:20 Analysis of Information Transmission Using Additional Chip-Shift Signal with Parallel Pilot Signal for Multipath Estimation Based on Complete Complementary Sequences
Toshiaki IMOTO, Naoki SUEHIRO, A.J. Han VINK, Makoto NAKAMURA, Chenggao HAN

10:20-10:40 An Implementation for Indoor Wireless Communication System Using 16 QAM and Orthogonal Spreading Sequences
Hao XUEFEI, Hu DONGWEI, Chen JIE, Naoki SUEHIRO

10:40-11:00 Coffee

Section 8 - Sequences and Communications Applications (II) (Chair: Andrew Tirkel)

11:00-11:20 Capacity Comparison on CDMA Systems for High Data Rate Transmission
Mitsuhiro TOMITA, Noriyoshi KUROYANAGI, Kohei OHTAKE, Naoki SUEHIRO, Shinya MATUFUJI

11:20-11:40 Comparison of the Two Signal Design Methods in the CDMA Systems Using Complete Complementary Codes under Various Modulation Schemes
Tetsuya KOJIMA, Masahiro AONO

11:40-12:00 Constant Amplitude Signaling on a Multicode Transmission System with PC/SS Systems
Kouji OHUCHI

12:00-12:20 A Programmable Single Chip Architecture for MIMO OFDM Baseband Receiver
Hao XUEFEI, Chen JIE, Naoki SUEHIRO

12:20-12:40 On the Performance Approximation of Equal-Gain Combining Scheme over Frequency-Selective Rayleigh Fading Channel
Qingchun CHEN, Pingzhi FAN

12:40-14:00 Lunch

Section 9 - Sequences and Communications Applications (III) (Chair: Xiaohu Tang)

14:00-14:20 Space-Time Multiple Access Codes Design
Yongzhong ZOU, Daoben LI

14:20-14:40 A Design of a Digital Matched Filter Bank for an Optical ZCZ Code Using a Sylvester Type Hadamard Matrix
Takahiro MATSUMOTO, Shigeo TSUKIASHI, Shinya MATSUFUJI, Yoshihiro TANADA

14:40-15:00 The Design and Application of Group-wise Zero Correlation Window Codes in MIMO
Fan YANG, Yongzhong ZOU, Daoben LI

15:00-15:20 The Application of Walsh Codes in Reducing ACI in LAS-CDMA
Fan YANG, Yongzhong ZOU, Daoben LI

15:20-15:40 Two-Dimensional Pilot Patterns for OFDM Cellular Systems
Branislav M. POPOVIC, Bingyu QU, Yang LI

16:00-20:00 Sightseeing in Choufu, and Dinner at a restaurant "Raku Raku Ann".
Gather in front of the door in the hall (1F) at 16:00. The gathering time might become early.