

# Program for ADTHM 2014

All talks in room C640

## Tuesday, July 8

<i>Time</i>	<i>Speaker</i>	<i>Talk title</i>
7:30 – 8:45	<i>Registration (table near room C640); Breakfast (room on SE side of Urban Market)</i>	
8:45 – 9:00	<i>Welcome by the Dean of A&amp;S. Information</i>	
<i>Chair: Qing Xiang</i>		
9:00 – 9:50	Charlie Colbourn ( <i>plenary</i> )	Hadamard Matrices and Covering Arrays
10:00 – 10:40	Ian Wanless ( <i>invited</i> )	Cyclotomic orthomorphisms
10:40 – 11:00	<i>Break</i>	
<i>Chair: Qing Xiang</i>		
11:00 – 11:40	Behruz Tayfeh-Rezaie ( <i>invited</i> )	Classification of Hadamard matrices of small orders
11:50 – 12:30	Djokovic & Kotsireas ( <i>invited</i> )	3.5 years of periodic complementary sequences
12:30 – 14:00	<i>Lunch</i>	
<i>Chair: Rob Craigen</i>		
14:00 – 14:50	Bernhard Schmidt ( <i>plenary</i> )	Circulant Hadamard Matrices and Barker Sequences
15:00 – 15:40	Seberry & Awyzio ( <i>invited</i> )	Some Thoughts on Symmetric Conference Matrices
15:40 – 16:00	<i>Break</i>	
<i>Chair: Rob Craigen</i>		
16:00 – 16:20	Ming Ming Tan	Solving Open Cases of Circulant Weighing Matrices
16:25 – 16:45	Ebrahim Ghaderpour	Signed group orthogonal designs and their applications
16:50 – 17:10	Paul Leopardi	Twin bent functions and Clifford algebras
17:15 – 17:35	Ilya Zhdanovskiy	A 4-dimensional family of generalized Hadamard matrices

## Wednesday, July 9

<i>Time</i>	<i>Speaker</i>	<i>Talk title</i>
7:30 – 9:00	<i>Breakfast</i>	
<i>Chair: Vladimir Tonchev</i>		
9:00 – 9:50	Doug Stinson ( <i>plenary</i> )	New Results on Binary Frameproof Codes
10:00 – 10:40	Dane Flannery ( <i>invited</i> )	On linear shift representations
10:40 – 11:00	<i>Break</i>	
<i>Chair: Dane Flannery</i>		
11:00 – 11:40	Victor Alvarez ( <i>invited</i> )	A cocyclic approach to some families of Hadamard matrices
11:50 – 12:30	José Andrés Armario ( <i>invited</i> )	Maximal determinants and cocyclic matrices
12:30 – 12:40	<i>Group Photo</i>	
12:40 – 14:00	<i>Lunch</i>	
<i>Chair: Charlie Colbourn</i>		
14:00 – 14:50	Jonathan Jedwab ( <i>plenary</i> )	Hadamard matrices and complex equiangular lines
15:00 – 15:40	Mieko Yamada ( <i>invited</i> )	Menon-Hadamard difference sets obtained from a local field by natural projections
15:40 – 16:00	<i>Break</i>	
<i>Chair: Clement Lam</i>		
16:00 – 16:20	Oktay Olmez	Some families of $1\frac{1}{2}$ -difference set in elementary abelian $p$ -groups
16:25 – 16:45	Yuichiro Fujiwara	Instantaneously estimating quantum channels through linear codes
16:50 – 17:10	Ronan Egan	Automorphisms of the Sylvester matrix and related designs
17:15 – 17:35	Peter Zvengrowski	Regular polyhedra and Hadamard matrices
18:00 –	<i>Reception</i>	

**Thursday, July 10**

<i>Time</i>	<i>Speaker</i>	<i>Talk title</i>
7:30 – 9:00	<i>Breakfast</i>	
<i>Chair: Charlie Colbourn</i>		
9:00 – 9:50	Karol Życzkowski ( <i>plenary</i> )	Quantum information processing, combinatorics and Hadamard matrices
10:00 – 10:40	William Martin ( <i>invited</i> )	Nice Euclidean configurations from incidence matrices and characters of designs
10:40 – 11:00	<i>Break</i>	
<i>Chair: Qing Xiang</i>		
11:00 – 11:40	Sho Suda ( <i>invited</i> )	Mutually unbiased weighing matrices and their generalization
11:50 – 12:30	Ferenc Szöllősi ( <i>invited</i> )	Modular combinatorial designs and Hadamard matrices modulo 5
12:30 – 14:00	<i>Lunch</i>	
<i>Chair: Vladimir Tonchev</i>		
14:00 – 14:50	Akihiro Munemasa ( <i>plenary</i> )	Generalized tensor products and related constructions
15:00 – 15:40	William Orrick ( <i>invited</i> )	Lander chains and structure of Hadamard matrices
15:40 – 16:00	<i>Break</i>	
<i>Chair: Dane Flannery</i>		
16:00 – 16:20	Pekka H. J. Lampio	Designing MIMO antenna systems
16:25 – 16:45	Padraig Ó Catháin	Combinatorial designs and compressed sensing
16:50 – 17:10	Jacob Erickson	Entropy Optimal Orthogonal Matrices
17:15 – 17:35	Kanat Abdukhalikov	Mutually unbiased bases, Hadamard matrices and symplectic spreads

**Friday, July 11**

<i>Time</i>	<i>Speaker</i>	<i>Talk title</i>
7:30 – 9:00	<i>Breakfast</i>	
<i>Chair: Rob Craigen</i>		
9:00 – 9:50	Mate Matolcsi ( <i>plenary</i> )	A new approach to the circulant Hadamard conjecture with Walsh-Fourier analysis
10:00 – 10:40	Stelios Georgiou ( <i>invited</i> )	Orthogonal designs, the Kharaghani array and applications to other fields
10:40 – 11:00	<i>Break</i>	
<i>Chair: Rob Craigen</i>		
11:00 – 11:40	Dean Crnkovic ( <i>invited</i> )	On some codes and divisible designs constructed from Hadamard matrices
11:50 – 12:30	Asha Rao ( <i>invited</i> )	A new family of Alltop functions
12:30–	<i>Closing remarks &amp; Lunch</i>	