# Schedule

## 18ICMAA Day 1, June 22, 2018 (Friday): Registration and free discussion

## 18ICMAA Day 2, June 23, 2018 (Saturday):

9:00-9:15 Opening (W2-101, Committee members and invited speakers on stage, award plaque, matrix hats)

9:15-10:00 Invited Talk T. Ando, *Norm conditions for separability in \$M\_m\otimes M\_n\$* (Room: W2-101) Chair Hiroyuki Osaka

10:00-10:30 Coffee Break

10:30-11:30 Morning parallel sessions (Room 1: W5-21, Room 2: W5-23)

Time	Room 1, Chair R. Sze	Room 2, Chair Fuzhen Zhang
10:30-11:00	Frank Hansen	Christopher Paige
	Multivariate convex operator means	Loss of orthogonality in large sparse matrix
		computations
11:00-11:30	Tin-Yau Tam	Yongdo Lim
	Some Nonlinear Problems in Linear	Log-majorizations for the eigenvalues of the
	Algebra	Cartan barycenter

## 11:30-1:30 PM Lunch

## 13:30-17:00 Afternoon parallel sessions (Room 1: W5-21, Room 2: W5-23)

Time PM	Room 1, Chair da Fonseca	Room 2, Chair H. Osaka
1:30-2:00	Enide Andrade	Schindranath Jayaraman
	Bottleneck matrices and combinatorial	Nonsingular subspaces of
	Perron parameters of trees	$M_n(\mathbb{F}), \mathbb{F})$
2:00-2:30	Lei Cao	Vatsalkumar N. Mer
	Symmetric, Hankel-symmetric, and	Semipositivity of matrices and linear maps
	Centrosymmetric Doubly Stochastic	relative to proper cones
	Matrices	
2:30-3:00	Yue Liu	Hoa-Binh T. Du
	The ray nonsingularity of certain uniformly	A note on Positivstellens\"{a}tze for matrix
	random ray patterns	polynomials

## 3:00-3:30 PM Coffee break

Time PM	Room 1, Chair C. Xu	Room 2, Chair Y. Zhang
3:30-4:00	Carlos M. da Fonseca	Yusuke Sawada
	A short proof of an inverse eigenvalue	The affine property of quasi-free states on
	problem for Jacobi matrices	self-dual CAR algebras
4:00-4:30	Takeaki Yamazaki	Agnes T. Paras
	On numerical range of a	The subspaces spanned by Householder
	generalization of the Aluthge transform	vectors associated with an orthogonal or a
		symplectic matrix
4:30-5:00	Rute Lemos	Himadri Mukherjee
	Some log-majorizations and a	An improved voting power index based on
	determinantal inequality	relations between the players

# 18ICMAA Day 3, June 24, 2018 (Sunday):

9:00-9:45	Invited Talk F. Hiai, Quantum \$f\$-divergences in von Neumann algebras (Room: W2-101)
	Chair Hiromichi Ohno
9:45-10:00	Group photo
10:00-10:30	Coffee Break
10:30-11:30	Morning parallel sessions (Room 1: W5-21, Room 2: W5-23)

Time	Room 1, Chair T.Y. Tam	Room 2, Chair L. Cao
10:30-11:00	Seung-Hyeok Kye	Yang Zhang
	Separability crietria of multi-qubit states	Maple package for matrix computations
	in terms of diagonal and anti-diagonal	
	entries	
11:00-11:30	Raymond Nung-Sing Sze	Yoichi Udagawa
	The generalized numerical range of a set of	An integral representation of some operator
	matrices	monotone functions

#### 11:30-1:30 PM Lunch

## 1:30-4:30 PM Afternoon parallel sessions (Room 1: W5-21, Room 2: W5-23)

Time PM	Room 1, Chair SH. Kye	Room 2, Chair T. Yamazaki
1:30-2:00	Jinmi Hwang	Changqing Xu
	Bounds for the Wasserstein mean with	Commutation matrices and commutation
	applications to the Lie-Trotter mean	tensors
2:00-2:30	Hosoo Lee	Siripong Sirisuk
	Karcher equations and geometric mean	Generalized bilinear form graphs over finite
	tensor	commutative rings
2:30-3:00	Hiromichi Ohno	Fuzhen Zhang
	Unitary equivalence classes of some types	Enumerating vertices of the polytopes of
	of quantum walks	stochastic tensors by an optimization
		approach

## 3:00-3:30 PM Coffee break

Time PM	Room 1, Discussions	Room 2, discussions
3:30-4:00	Yukihiro Tsurumi	Bich-Khue T. Vo
	Operator means and generalized relative	Some inequalities for matrix Heinz mean
	entropy	
4:00-4:30	Tongsong Jiang	
	A unified approach for the Schrodinger	
	equations in quaternionic and split	
	quaternionic mechanics	

5:30 PM - Banquet

# 18ICMAA Day 4, June 25, 2018 (Monday): Free Discussions