

Schedule

	Plenary <i>Building 370, Room 370</i>	Afternoon		
		1:30p.m.	2:30p.m.	4:15p.m.
Monday June 28	9:30a.m. <i>Electromagnetic Waves</i> • Gunther Uhlmann (University of Washington) <i>Transformation Optics and Cloaking</i>	<i>Mathematical Imaging—Building 160, Room 331</i>		
		• Charles Chui (University of Missouri & Stanford University) <i>Dimensionality Reduction for Hyperspectral Imaging</i>	• Ji Hui (National University of Singapore) <i>Sparse approximation and blind image de-convolution</i>	• Zuowei Shen (National University of Singapore) <i>Frame-Based Image Restoration</i>
	11:00a.m. <i>Mathematical Imaging</i> • Emmanuel Candès (Stanford University) <i>Advances in low-rank matrix modeling: some theory and some computer vision applications</i>	<i>Electromagnetic Waves—Building 160, Room 332</i>		
		• Gang Bao (Michigan State University) <i>Inverse Problems for Maxwell's Equations</i>	• Hyeonbae Kang (Inha University) <i>Electromagnetic Reconstruction of Targets Using Fine Properties of Multistatic Response Matrices</i>	• Xudong Chen (University of Singapore) <i>Electromagnetic Inverse Scattering Problems Involving Small Scatterers</i>
	<i>Kinetic Equations and Gas Dynamics—Building 200, Room 013</i>			
	• Kazuo Aoki (Kyoto University) <i>Stokes fluid dynamics for a vapor-gas mixture derived from kinetic theory</i>	• Russel Caflisch (UCLA) <i>Monte Carlo Simulation for Coulomb Collisions</i>	• Dongho Chae (Sungkyunkwan University) <i>On the pressure of the incompressible fluids and the axisymmetric flows</i>	
	<i>Functional Analysis—Building 160, Room 330</i>			
	• Boo Rim Choe (Korea University) <i>Survey on the finite-rank product conjecture for Toeplitz operators</i>	• Tsuyoshi Kato (Kyoto University) <i>Growth of Casson handles and Yang-Mills gauge theory</i>	• Kunyu Guo (Fudan University) <i>Multiplication operators defined by covering maps on the Bergman space: the connection between operator theory and von Neumann algebras</i>	

	Plenary <i>Building 370, Room 370</i>	1:30p.m.	Afternoon 2:30p.m.	4:15p.m.
Tuesday June 29	9:30a.m. <i>Number Theory</i> <ul style="list-style-type: none"> • James Borger (Australian National University) <i>Geometry—from algebraic to arithmetic to absolute</i>	<i>Number Theory—Building 160, Room 330</i>		
	11:00a.m. <i>Functional Analysis</i> <ul style="list-style-type: none"> • Guoliang Yu (Vanderbilt University) <i>Geometric complexity and topological rigidity</i>	<ul style="list-style-type: none"> • Samit Dasgupta (UC-Santa Cruz) <i>An integral Eisenstein-Sczech cocycle on $SL_n(\mathbb{Z})$ and p-adic L functions of totally real fields</i>	<ul style="list-style-type: none"> • Cristian Popescu (UC-San Diego) <i>Tate modules of Picard 1-motives and applications</i>	<ul style="list-style-type: none"> • Vinayak Vatsal (University of British Columbia) <i>Period integrals of modular forms</i>
		<i>Mathematical Imaging—Building 160, Room 331</i>		
		<i>Electromagnetic Waves—Building 160, Room 332</i>		
		<ul style="list-style-type: none"> • Joseph Teran (UCLA) <i>Math in the Movies</i>	<ul style="list-style-type: none"> • Hongkai Zhao (UC-Irvine) <i>A phase space method for recovering index of refraction from travel times</i>	<ul style="list-style-type: none"> • Bin Dong (UC-San Diego) <i>Some Mathematical Models in Biomedical Shape Processing and Analysis</i>
		<ul style="list-style-type: none"> • Hongyu Liu (University of Washington) <i>Approximate acoustic and electromagnetic cloaking</i>	<ul style="list-style-type: none"> • Ya Yan Lu (City University of Hong Kong) <i>Efficient Method for Analyzing Woodpile Structures</i>	<ul style="list-style-type: none"> • (4:15) Ting Zhou (University of Washington) <i>Reconstructing Electromagnetic Obstacles by the Enclosure Method</i>
				<ul style="list-style-type: none"> • (4:45) Junshan Lin (Michigan State) <i>Near-field imaging of the surface displacement on an infinite ground plane</i>

	Plenary <i>Building 370, Room 370</i>	1:30p.m.	Afternoon 2:30p.m.	4:15p.m.
Wednesday June 30	9:30a.m. <i>Non-Linear PDEs</i> • Xu-Jia Wang (Australian National University) <i>The Affine Maximal Surface Equation</i>	<i>Number Theory—Building 160, Room 330</i>		
		• Karl Rubin (UC-Irvine) <i>Twists of elliptic curves and Hilbert's Tenth Problem</i>	• Akshay Venkatesh (Stanford University) <i>Torsion in the homology of arithmetic groups</i>	• James Borger (Australian National University) <i>Witt vectors, lambda-rings, and absolute algebraic geometry</i>
	11:00a.m. <i>Kinetic Equations and Gas Dynamics</i> • Tai-Ping Liu (Academia Sinica & Stanford University) <i>Hilbert's Sixth Problem</i>	<i>Non-Linear PDEs—Building 160, Room 331</i>		
		• Bo Guan (Ohio State University) <i>Complete hypersurfaces of constant curvature in hyperbolic space with asymptotic boundary at infinity</i>	• Huaiyu Jian (Tsinghua University) <i>A Bernstein theorem for the Monge-Ampere equation and applications</i>	• Yu Yuan (University of Washington) <i>Singular solutions to special Lagrangian equations with subcritical phase and minimal surface system</i>
	<i>Kinetic Equations and Gas Dynamics—Building 200, Room 013</i>			
	• Shinya Nishibata (Tokyo Institute of Technology) <i>Asymptotic behavior of solutions to the Euler-Poisson equation in plasma physics</i>	• I-Kun Chen (Academia Sinica) <i>Maxwellian Bound for thermal transpiration problem and the singularity near the boundary</i>	• Seung-Yeal Ha (Seoul National University) <i>Complete synchronization of Kuramoto oscillators</i>	
	<i>Differential Geometry—Building 160, Room 332</i>			
	• Akito Futaki (Tokyo Institute of Technology) <i>Kähler geometry and asymptotic Chow stability</i>	• Lei Ni (UC-San Diego) <i>Ancient solutions to the Ricci flow</i>	• Kazuo Akutagawa (Tohoku University) <i>The Yamabe invariant of cylindrical manifolds and computations of the orbifold Yamabe invariant</i>	

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		1:30p.m.	2:30p.m.	4:15p.m.
Thursday July 1	<p>9:30a.m.</p> <p><i>Combinatorics</i></p> <ul style="list-style-type: none"> • Persi Diaconis (Stanford University) <p><i>Adding numbers, shuffling cards, and an amazing matrix</i></p>	<i>Combinatorics—Building 160, Room 330</i>		
		<ul style="list-style-type: none"> • Jarik Nešetřil (Charles University) <p><i>Homomorphism Dualities in Optimization, Logic, and Algorithms</i></p>	<ul style="list-style-type: none"> • Alexandr Kostochka (University of Illinois–Urbana-Champaign) <p><i>List Coloring of Simple Hypergraphs</i></p>	<ul style="list-style-type: none"> • Gerard Chang (National Taiwan University) <p><i>On the number of subsequences with a given sum in a finite abelian group</i></p>
	<p>11:00a.m.</p> <p><i>Random Systems and PDEs</i></p> <ul style="list-style-type: none"> • S.R.S. Varadhan (Courant Institute) <p><i>Large Deviations</i></p>	<i>Algebraic Geometry—Building 160, Room 332</i>		
		<ul style="list-style-type: none"> • Christopher Hacon (University of Utah) <p><i>Boundedness results in birational algebraic geometry</i></p>	<ul style="list-style-type: none"> • Masayuki Kawakita (RIMS Kyoto University) <p><i>Singularities in the minimal model program</i></p>	<ul style="list-style-type: none"> • Jungkai Alfred Chen (National Taiwan University) <p><i>Birational maps in dimension three</i></p>
		<i>Non-Linear PDEs—Building 160, Room 331</i>		
		<ul style="list-style-type: none"> • Hitoshi Ishii (Waseda University) <p><i>The Neumann problem for Hamilton-Jacobi equations in view of weak KAM</i></p>	<ul style="list-style-type: none"> • Yng-Ing Lee (National Taiwan University) <p><i>Self-similar solutions and translating solutions for Lagrangian mean curvature flow</i></p>	<ul style="list-style-type: none"> • Juncheng Wei (Chinese University of Hong Kong) <p><i>On the De Giorgi Conjecture and Beyond</i></p>
		<i>Random Systems and PDEs—Building 200, Room 013</i>		
		<ul style="list-style-type: none"> • Tadahisa Funaki (University of Tokyo) <p><i>Hydrodynamic limit for a dynamic model of 2D Young diagrams</i></p>	<ul style="list-style-type: none"> • Stefano Olla (CEREMADE & INRIA) <p><i>From Hamiltonian dynamics to heat equation: the hydrodynamic limit approach by energy conserving stochastic perturbations</i></p>	<ul style="list-style-type: none"> • Sunder Sethuraman (Iowa State) <p><i>A scaling limit for a tagged particle in bounded one dimensional zero-range systems</i></p>

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Friday July 2	<p>9:30a.m.</p> <p><i>Algebraic Geometry</i></p> <ul style="list-style-type: none"> • Shigeru Mukai (RIMS Kyoto University) <p><i>Enriques surfaces and root systems</i></p>	<i>Combinatorics—Building 160, Room 330</i>		
		<ul style="list-style-type: none"> • Pavol Hell (Simon Fraser University) <p><i>List Homomorphism Problems</i></p>	<ul style="list-style-type: none"> • Xingxing Yu (Georgia Institute of Technology) <p><i>K_5-subdivisions in 5-connected nonplanar graphs</i></p>	<ul style="list-style-type: none"> • Zhi-Wei Sun (Nanjing University) <p><i>Super Congruences involving Binomial Coefficients and New Series for Famous Constants</i></p>
	<p>11:00a.m.</p> <p><i>Differential Geometry</i></p> <ul style="list-style-type: none"> • Seiki Nishikawa (Tohoku University) <p><i>Harmonic maps into complex Finsler manifolds</i></p>	<i>Algebraic Geometry—Building 160, Room 332</i>		
		<ul style="list-style-type: none"> • Ichiro Shimada (Hiroshima University) <p><i>Lattices of algebraic cycles in positive characteristics</i></p>	<ul style="list-style-type: none"> • Bumsig Kim (Korea Institute for Advanced Study) <p><i>Stable Quasimaps to Holomorphic Symplectic Quotients</i></p>	<ul style="list-style-type: none"> • Yu-jong Tzeng (Stanford University & Harvard University) <p><i>Universal Formulas for Counting Nodal Curves on Surfaces</i></p>
		<i>Random Systems and PDEs—Building 200, Room 013</i>		
		<ul style="list-style-type: none"> • Alejandro F. Ramírez (Pontificia Universidad Católica de Chile) <p><i>Ballistic conditions for random walk in random environment</i></p>	<ul style="list-style-type: none"> • Atilla Yilmaz (UC-Berkeley) <p><i>Large deviations for random walk in a random environment</i></p>	<ul style="list-style-type: none"> • Fraydoun Rezakhanlou (UC-Berkeley) <p><i>Gelation for the Marcus-Lushnikov Process</i></p>
		<i>Differential Geometry—Building 160, Room 331</i>		
		<ul style="list-style-type: none"> • Ben Andrews (Australian National University) <p><i>The fundamental gap on manifolds and on convex domains</i></p>	<ul style="list-style-type: none"> • Richard Schoen (Stanford University) <p><i>Sharp eigenvalue estimates and area bounds for stationary submanifolds and varifolds in Euclidean space</i></p>	<ul style="list-style-type: none"> • Ko Honda (University of Southern California) <p><i>HF=ECH via open book decompositions</i></p>