

GEOMETRY, QUANTUM TOPOLOGY AND ASYMPTOTICS

SCHEDULE OF TALKS

MONDAY 30-6

- 9:00-9:50 **Shing-Tung Yau** (Harvard University, Chinese University of Hong Kong, Tsinghua University)
Non-Kaehler Calabi–Yau Mirror Symmetry and Symplectic Structures
- 10:15-11:05 **Yuguang Zhang** (Tsinghua University)
Triviality of fibered Calabi–Yau manifolds without singular fibers
- 11:10-12:00 **Jørgen Ellegaard Andersen** (Aarhus University)
The Hitchin connection, degenerations in Teichmüller space and SYZ-mirror symmetry
- 12:00 Lunch
- 14:15-15:05 **Hiroyuki Fuji** (Tsinghua University)
Colored Superpolynomial and Super-A-polynomial
- 15:30-16:20 **Emanuel Scheidegger** (University of Freiburg)
Topological string on elliptic fibrations
- 16:30-17:20 **Vladimir Mangazeev** (Australian National University)
A 3D approach to the 6-vertex model

TUESDAY 1-7

- 9:00-9:50 **Don Zagier** (College de France, France and Max Planck Institute for Mathematics)
Kashaev invariants, Nahm sums, and modularity
- 10:15-11:05 **An Huang** (Harvard University)
Tautological system for period integrals
- 11:10-12:00 **Rinat Kashaev** (University of Geneva)
A simple model of 4d-TQFT
- 12:00 Lunch
- 14:15-15:05 **Murad Alim** (Harvard University)
Topological String Lie Algebra
- 15:30-16:20 **Bernd Siebert** (Universität Hamburg)
Geometric quantization of semi-positive varieties inspired by mirror symmetry
- 16:30-17:20 **Thang Le** (Georgia Institute of Technology)
The Habiro ring and unified quantum invariants of 3-manifolds

WEDNESDAY 2-7

- 9:00-9:50 **Bertrand Eynard** (Institut de Physique Théorique)
Topological recursion and quantum curves
- 10:15-11:05 **Stavros Garoufalidis** (Georgia Institute of Technology)
Graph counting and the stable coefficients of the Jones polynomial.
- 11:10-12:00 **Louis Hirsch Kauffman** (University of Illinois at Chicago)
Basics of Khovanov Homology.
- 12:00 Lunch
- 14:00- Excursion

THURSDAY 3-7

- 9:00-9:50 **Vladimir Bazhanov** (Australian National University)
From Fuchsian Differential Equations to Integrable Quantum Field Theory
- 10:15-11:05 **Gaëtan Borot** (Max Planck Institute)
 $SU(N)$ Chern–Simons in Seifert spaces at large N : a matrix model analysis
- 11:10-12:00 **Roland van der Veen** (University of Amsterdam)
Normal surface theory according to the Jones polynomial
- 12:00 Lunch
- 14:15-15:05 **Wenxuan Lu** (Tsinghua University)
Stability Conditions, Attractors and Mirror Symmetry
- 15:30-16:20 **Kwok Wai Chan** (The Chinese University of Hong Kong)
SYZ and HMS for toric CY manifolds
- 16:30-17:20 **Tudor Dimofte** (Institute for Advanced Study)
A Spectral Perspective on Neumann–Zagier
- 18:00-19:00 Calligraphy
- 19:00-21:30 Barbecue

FRIDAY 2-7

- 9:00-9:50 **Rahul Pandharipande** (ETH Zurich)
Counting curves on $K3$ surfaces: the Katz–Klemm–Vafa formula
- 10:15-11:05 **Siu Cheong Lau** (Harvard University)
SYZ for conifold transitions of toric Calabi–Yau manifolds
- 11:10-12:00 **Feng Luo** (Rutgers University)
Volume and rigidity of hyperbolic polyhedral 3-manifolds