



SPACE TIME MATRICES

25-26-27 February 2019

Marilyn and James Simons Conference Center



Monday 25 February, 2019

- 9:30 *Registration and Welcome coffee*
- 10:00 - 11:00 Hikaru Kawai (Kyoto University)
Emergence of Space-Time from Matrices - *Problems and Prospects of the IIB Matrix Model* -
- 11:00 - 11:30 *Coffee break*
- 11:30 - 12:30 Joakim Arnlind (Linköping University)
Discrete Minimal Surface Algebras
- 12:30 - 14:30 *Lunch*
- 14:30 - 15:30 Harold Steinacker (University of Vienna)
Covariant Cosmological Quantum Space-Time: Higher-spin and Gravity in the IKKT Matrix Model
- 15:30 - 16:00 *Coffee break*
- 16:00 - 17:00 Denjoe O'Connor (DIAS)
Non-perturbative Studies of Membrane Matrix Models

Tuesday 26 February, 2019

- 9:30 *Welcome coffee*
- 10:00 - 11:00 Martin Bordemann (UHA)
Noncommutative Riemann Surfaces
- 11:00 - 11:30 *Coffee break*
- 11:30 - 12:30 Asato Tsuchiya (Shizuoka University)
Space-Time Structure in the Type IIB Matrix Model
- 12:30 - 14:30 *Lunch*
- 14:30 - 15:30 Niklas Beisert (ETH Zürich)
Integrability in Planar Ads/CFT and Yangian Symmetry
- 15:30 - 16:00 *Coffee break*
- 16:00 - 17:00 Antal Jevicki (Brown University)
Emergent Space-Time in Simple Models
- 17:15 - 18:15 Maxim Kontsevich (IHES)
Quantum Minimal Surfaces

Wednesday 27 February, 2019

9:30	<i>Welcome coffee</i>
10:00 - 11:00	Douglas Lundholm (KTH) Spectrum and Ground States of Membrane Matrix Models
11:00 - 11:30	<i>Coffee break</i>
11:30 - 12:30	Piljin Yi (KIAS) Index Theorems for Gauge Theories and Holonomy Saddles
12:30 - 14:30	<i>Lunch</i>
14:30 - 15:30	Alain Connes (Collège de France & IHES) On the Fine-Structure of Space-Time
15:30 - 16:00	<i>Coffee break</i>
16:00 - 17:00	Jürg Fröhlich (ETH Zürich) Quantum Theory and Causality
