# EINSTEIN AT SISSA 2010 3rd Workshop on Geometric Methods in Theoretical Physics

# A conference of the Italian-Russian EINSTEIN project "Integrability in topological string and field theory" SISSA, Via Bonomea 265, Trieste, Room 005 July 5 to 9, 2010

# Programme

## July 5

- 9:40 U. Bruzzo, K-theory of Hilbert schemes and Nakajima-Grojnowski operators
- 11:00 A. Tanzini, The M theory view on the AGT conjecture
- 12:00 E. Akhmedov, Real or Imaginary? (On pair creation in de Sitter space)
- 15:00 S. Apenko, c-theorem in one dimension and excess entropy
- 16:00 A. Smirnov, The Chern-Simons theory in the temporal gauge
- 17:00 F. Sala, Introduction to moduli spaces of framed sheaves
- 17:40 P. Dunin-Barkovsky, Vassiliev invariants of knots

#### July 6

- 9:40 V. Poberezhny, TBA
- 11:00 S. Klevtsov, Kaehler metrics, 2d gravity and complex random matrices
- 12:00 P. Burda, A simple way to take into account back reaction on pair creation
- 15:00 P. Martinetti, The metric aspect of noncommutative geometry
- 16:00 K. De Commer, On the deformation of quantum groups
- 17:20 D. Galakhov, Non-Lagrangian quantization and real systems
- 18:00 P. Tortella, Framed sheaves and Heisenberg algebra

# July 7

- 9:40 D. Vasiliev, Laplacian growth and reductions of dispersionless hierarchies
- 11:00 A. Kuznetsov, Calabi-Yau and fractional Calabi-Yau triangulated categories
- 12:00 J. Bhowmick, Quantum isometry groups
- 15:00 I. Polyubin, Beta Function in the self-dual Yang-Mills theory and configuration space renormalization group
- 16:00 A. Sleptsov, Unknot and two different gauges of Chern-Simons theory
- 17:00 S. Shakirov, Elementary correlation functions in Hermitian matrix model
- 17:40 S. Mironov, CFT exercises for the needs of AGT

### July 8

- 9:40 R. Rashkov, Aspects of AdS/CFT correspondence
- 11:00 H. Itoyama, TBA
- 12:00 P. Putrov, ABJM theory and topological strings
- 15:00 S. Shakirov, Matrix model version of the AGT conjecture
- 16:00 A. Popolitov, Nekrasov functions and the Penner model
- 17:00 V. Alba, On the AGT conjecture
- 17:40 An. Morozov, TBA

# July 9

- 9:40 E. Aldrovandi, Cohomology for stacks and gerbes
- 11:00 O. Iena, Simpson moduli spaces of 1-dimensional sheaves and their modifications by vector bundles: examples and questions
- 12:00 N. Amburg, Genus zero real curves moduli space
- 15:00 V. Shadura, Spin operator matrix elements in the quantum Ising chain: fermion approach
- 16:00 D. Masoero, Y system and deformed thermodynamic Bethe ansatz
- 16:40 P. Dunin-Barkovsky, Direct calculation of homology of non-compactified moduli spaces