Programme on
“Modern Trends in Topological Quantum Field Theory”
February 3 - March 28, 2014
organized by
Jürgen Fuchs, Ludmil Katzarkov,
Nicolai Reshetikhin, and Christoph Schweigert

Workshop Schedule: February 17 - 21, 2014

- Monday, February 17, 2014
  09:30 Opening & Registration
  10:00 – 10:40 coffee
  10:40 – 11:30 Kevin Walker
  Premodular TQFTs
  11:40 – 12:30 Chris Schommer-Pries
  Extended topological field theories and tensor categories
  12:30 – 15:00 lunch break
  15:00 – 15:50 Sonia Natale
  On weakly group-theoretical non-degenerate braided fusion categories
  15:50 – 16:30 break
  16:30 – 17:20 Alessandro Valentino
  Boundary conditions for 3d TQFTs and module categories

- Tuesday, February 18, 2014
  09:10 – 10:00 Pranav Pandit
  The topological A-model, spectral networks, WKB-theory and buildings
  10:00 – 10:40 coffee
  10:40 – 11:30 Alexis Virelizier
  3-dimensional HQFTs
  11:40 – 12:30 Joost Slingerland
  Local representations of the loop braid group
  12:30 – 15:00 lunch break
  15:00 – 15:50 Catherine Meusburger
  Diagrams for Gray categories with duals
  15:50 – 16:30 break
  16:30 – 17:20 Thomas Nikolaus
  Twisted differential cohomology
• Wednesday, February 19, 2014
  09:10 – 10:00  Ulrich Bunke
  Differential cohomology theory
  10:00 – 10:40  coffee
  10:40 – 11:30  Ulrike Tillmann
  Commutative K-Theory and other new generalised cohomology theories
  11:40 – 12:30  Boris Vertman
  Combinatorial quantum field theory and gluing formula for determinants

• Thursday, February 20, 2014
  09:10 – 10:00  Scott Morrison
  Progress on small fusion categories
  10:00 – 10:40  coffee
  10:40 – 11:30  Rinat Kashaev
  Beta pentagon relations
  11:40 – 12:30  Mahmoud Zeinalian
  A concise construction of differential K-theory
  12:30 – 15:00  lunch break
  15:00 – 15:50  Thomas Strobl
  Dirac sigma models and gauging
  15:50 – 16:30  break
  16:30 – 17:20  Urs Schreiber
  Homotopy-type semantics for quantization

• Friday, February 21, 2014
  09:10 – 10:00  Kazuo Habiro
  Kirby calculus for null-homologous framed links in 3-manifolds
  10:00 – 10:40  coffee
  10:40 – 11:30  Thomas Schick
  Geometric models for higher twisted of K-theory (joint work with Andrei Ershov)
  11:40 – 12:30  Theo Johnson-Freyd
  Poisson AKSZ theory and homotopy actions of properads
  12:30 – 14:30  lunch break
  14:30 – 15:20  Dror Bar-Natan
  A partial reduction of BF theory to combinatorics

All lectures take place in the ESI Boltzmann Lecture Hall