Summer School on current topics in Mathematical Physics
August 16 - 24, 2011
organized by Christian Hainzl, Robert Seiringer

- **Tuesday, August 16**

  10:00 – 11:00: Rafael Benguria (PUC, Santiago, Chile)
  Isoperimetric inequalities for eigenvalues of the Laplace and Schroedinger operator

  11:00 – 11:30: Coffee

  11:30 – 12:30: Rafael Benguria (PUC, Santiago, Chile)
  Isoperimetric inequalities for eigenvalues of the Laplace and Schroedinger operator

  12:30 – 15:00: Lunch Break

  15:00 – 16:00: Soeren Fournais (University of Aarhus, Denmark)
  Semiclassics with self-generated fields

  16:00 – 16:30 Break

  16:30 – 17:30: Soeren Fournais (University of Aarhus, Denmark)
  Semiclassics with self-generated fields

- **Wednesday, August 17**

  10:00 – 11:00: Wilhelm Schlag (University of Chicago, USA)
  Invariant manifolds and dispersive Hamiltonian Equations

  11:00 – 11:30: Coffee

  11:30 – 12:30: Wilhelm Schlag (University of Chicago, USA)
  Invariant manifolds and dispersive Hamiltonian Equations

  12:30 – 15:00: Lunch Break

  15:00 – 16:00: Rafael Benguria (PUC, Santiago, Chile)
  Isoperimetric inequalities for eigenvalues of the Laplace and Schroedinger operator

  16:00 – 16:30: Break

  16:30 – 17:30 Rafael Benguria (PUC, Santiago, Chile)
  Isoperimetric inequalities for eigenvalues of the Laplace and Schroedinger operator

- **Thursday, August 18**

  10:00 – 11:00: Soeren Fournais (University of Aarhus, Denmark)
  Semiclassics with self-generated fields

  11:00 – 11:30: Coffee

  11:30 – 12:30: Soeren Fournais (University of Aarhus, Denmark)
  Semiclassics with self-generated fields

  12:30 – 15:00: Lunch Break

15:00 – 16:00: Wilhelm Schlag (University of Chicago, USA)
Invariant manifolds and dispersive Hamiltonian Equations

16:00 – 16:30: Break

16:30 – 17:30 Wilhelm Schlag (University of Chicago, USA)
Invariant manifolds and dispersive Hamiltonian Equations

- **Friday, August 19**

  10:00 – 11:00: Vieri Mastropietro (Università di Roma, Italy)
  Universality and critical behavior in Luttinger and Dirac liquids

  11:00 – 11:30: Coffee

  11:30 – 12:30: Vieri Mastropietro (Università di Roma, Italy)
  Universality and critical behavior in Luttinger and Dirac liquids

  12:30 – 15:00: Lunch Break

  15:00 – 16:00: Mathieu Lewin (Cergy-Pontoise, Paris)
  Geometrics methods for nonlinear many-body quantum systems

  16:00 – 16:30: Break

  16:30 – 17:30 Mathieu Lewin (Cergy-Pontoise, Paris)
  Geometrics methods for nonlinear many-body quantum systems

- **Saturday, August 20**

  11:00 – 12:00: Vieri Mastropietro (Università di Roma, Italy)
  Universality and critical behavior in Luttinger and Dirac liquids

  12:00 – 12:30: Coffee

  12:30 – 13:30: Vieri Mastropietro (Università di Roma, Italy)
  Universality and critical behavior in Luttinger and Dirac liquids

- **Monday, August 22**

  10:00 – 11:00: Mathieu Lewin (Cergy-Pontoise, Paris)
  Geometrics methods for nonlinear many-body quantum systems

  11:00 – 11:30: Coffee

  11:30 – 12:30: Mathieu Lewin (Cergy-Pontoise, Paris)
  Geometrics methods for nonlinear many-body quantum systems

  12:30 – 15:00: Lunch Break

  15:00 – 16:00: Fabio Toninelli (ENS Lyon, France)
  Zero-temperature dynamics of the three-dimensional Ising model and dimer covering fluctuations

  16:00 – 16:30: Break

  16:30 – 17:30 Fabio Toninelli (ENS Lyon, France)
  Zero-temperature dynamics of the three-dimensional Ising model and dimer covering fluctuations

- **Tuesday, August 23**

  10:00 – 11:00: Jürg Fröhlich (ETH Zürich, Switzerland)
  States of matter and phase transitions accompanied by continuous symmetry breaking

  11:00 – 11:30: Coffee

  11:30 – 12:30: Jürg Fröhlich (ETH Zürich, Switzerland)
  States of matter and phase transitions accompanied by continuous symmetry breaking

  12:30 – 15:00: Lunch Break

  15:00 – 16:00: Fabio Toninelli (ENS Lyon, France)
  Zero-temperature dynamics of the three-dimensional Ising model and dimer covering fluctuations

  16:00 – 16:30: Break

  16:30 – 17:30 Fabio Toninelli (ENS Lyon, France)
  Zero-temperature dynamics of the three-dimensional Ising model and dimer covering fluctuations

- **Wednesday, August 24**

  10:00 – 11:00: Jürg Fröhlich (ETH Zürich, Switzerland)
  States of matter and phase transitions accompanied by continuous symmetry breaking

  11:00 – 11:30: Coffee

  11:30 – 12:30: Jürg Fröhlich (ETH Zürich, Switzerland)
  States of matter and phase transitions accompanied by continuous symmetry breaking

All lectures take place in the ESI Boltzmann Lecture Hall