

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**

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

• **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

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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