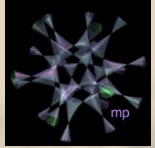# Andrejewski-Day

at the Faculty for Mathematics and Physics
University of Freiburg

Friday, May 18, 2012

PROGRAM

The mathematics of quantum transport

	Invited lectures	
9:00- 9:45	**Jean-Michel Bismut** *(Université Paris-Sud)*	The hypoelliptic Laplacian
10:00-10:45	**Fabio Benatti** *(Università di Trieste)*	Non-Markovian quantum dynamics
10:45-11:15	Posters & Coffee break	
11:15-12:00	**Thierry Paul** *(École Polytechnique Paris)*	Surprises in semiclassical approximations
12:15-13:00	**Maciej Zworski** *(UC Berkeley)*	Semiclassical scattering and applications
13:00-14:30	Lunch	
	Short presentations	
14:30-15:30	*Philipp Hauke* *(ICFO Barcelona)*	Non-Abelian gauge fields and topological insulators in shaken optical lattices
	Sam Genway *(Univ. Nottingham)*	Phase Transitions in Trajectories of a Superconducting Single-Electron Transistor Coupled to a Resonator
	Thomas Engl *(Univ. Regensburg)*	Semiclassical propagation in bosonic many particle systems
	Taketani, Bruno *(Univ. Saarbrücken)*	Long-distance entanglement between two defects embedded in a linear chain of ions
15:30-16:30	Posters & Coffee break	
16:30-17:45	*James Hickey* *(Univ. Nottingham)*	A stochastic viewpoint of non-equilibrium s-ensemble quantum master equations: From jump trajectories to homodyne detection
	Steffen Wißmann *(Univ. Freiburg)*	On the measure for quantum non-Markovianity: a simplification of the maximization procedure via geometrical considerations
	Daniel Manzano *(Univ. Innsbruck)*	Energy transport in quantum chains
	Federico Levi & Stefano Mostarda *(FRIAS Univ. Freiburg)*	Structural principles of efficient transport
	Pierre Lugan *(École Polytechnique Fédérale de Lausanne)*	Application of the kernel polynomial method to transport in disordered quantum systems
17:45-19:00	Posters & Refreshments	
from 19:00	Closing dinner	

Scientific Coordinators:
Andreas Buchleitner (Institute of Physics), Katrin Wendland (Institute of Mathematics)

Location: Albert-Ludwigs-Universität Freiburg, Institute of Physics, Hermann Herder-Str. 3
Further details: http://home.mathematik.uni-freiburg.de/mathphys/konf/Andrejewski.html

Walter und Eva Andrejewski-Stiftung