

BIRS WORKSHOP (Banff, CA)

[Workshop Code No: 08w5091]

Quantum chaos: Routes to RMT and beyond

24-29 February 2008

Time	Name	Title
Mon morning LEVEL STATISTICS		
8:45-9:00		Welcome Address
9:00-9:30	Tomsovic	Extreme statistics of random and quantum chaotic states
9:40-10:10	Bohigas	Some extreme value statistics problems in RMT
10:15-10:40		coffee break
10:40-11:10	Bogomolny	Spectral statistics of a pseudo-integrable map: the general case
11:20-11:50	Warzel	On the joint distribution of energy levels for random Schroedinger operators
Mon afternoon PERIODIC ORBITS & LEVEL STATISTICS		
13:00-14:00		Banff Centre Guided tour
14:00-14:10		Conference photo
14:10-14:50	Haake	Generating function for level correlations in chaotic systems, semiclassical evaluation
15:00-15:30	Mueller	Constructing a sigma model from semiclassics
15:30-16:00		coffee break
16:10-16:40	Sieber	Periodic orbit encounters: a mechanism for trajectory correlations
16:50-17:15	Berkolaiko	The forgotten orbits
Mon evening TRANSPORT - GENERAL & NOISE		
19:30-19:55	Whitney	Introduction to the Ehrenfest time
20:05-20:35	Rotter	Diffraction paths for weak localization in quantum billiards
		XXXXXXXXXXXX
Tue morning TRANSPORT - GENERAL & NOISE (cont)		
9:00-9:30	Brouwer	Anderson localization from classical trajectories
9:40-10:10	Aizenman	On dynamical localization in the linear and non-linear setup
10:15-10:40		coffee break
10:40-11:10	Braun	Transport through chaotic cavities: random matrix theory results reproduced from semiclassics
11:20-11:50	Sukhorukov	Quantum-to-Classical Crossover in Full Counting Statistics
Tue afternoon TRANSPORT - GENERAL & NOISE (cont)		
13:30-13:55	Macucci	Shot Noise Suppression in Single and Multiple Chaotic Cavities: the Role of Diffraction, Disorder and Symmetries
14:05-14:30	Cohen	The conductance of small mesoscopic disordered rings: resistor network analysis of novel sparse and textured matrices
14:40-15:05	Novaes	Counting statistics of quantum chaotic cavities from classical action correlations
15:10-15:35		coffee break
15:35-16:00	Rahav	The classical limit of quantum transport
QUANTUM GRAPHS AND MAPS		
16:10-16:40	Nonnenmacher	Quantum symbolic dynamics

16:50-17:20	Kelmer	Scarring on invariant manifolds for quantum maps on the torus
-------------	--------	---

Tue evening	QUANTUM GRAPHS AND MAPS (cont)	
--------------------	---------------------------------------	--

19:30-20:00	Terras	What is the Riemann Hypothesis for Zeta Functions of Irregular Graphs?
-------------	--------	--

20:10-20:40	Winn	Quantum graphs where back-scattering is prohibited XXXXXXXXXXXX
-------------	------	--

Wed morning	QUANTUM GRAPHS AND MAPS (cont)	
--------------------	---------------------------------------	--

08:40-9:10	Chalker	Network models for the quantum Hall effect and its generalisations
------------	---------	--

9:20-9:50	Stark	Poles of Zeta Functions of Graphs and their Covers
-----------	-------	--

10:00-10:20	coffee break	
-------------	--------------	--

10:20-10:50	Gnutzman	Quantum Graphs: From Periodic Orbits to Phase Disorder
-------------	----------	--

Wed afternoon	FREE AFTERNOON	
---------------	-----------------------	--

Wed evening	YOUNG RESEARCHERS	
--------------------	--------------------------	--

19:30-19:55	Band	Groups, Graphs & isospectrality
-------------	------	---------------------------------

20:05-20:30	Waltner	TBA XXXXXXXXXXXX
-------------	---------	---------------------

Thu morning	INTERACTIONS	
--------------------	---------------------	--

9:00-9:30	Zirnbauer	On the Hubbard-Stratonovich transformation for interacting bosons
-----------	-----------	---

9:40-10:10	Baranger	Interactions in Quantum Dots: Does the RMT/Random-Wave Model Work?
------------	----------	--

10:15-10:40	coffee break	
-------------	--------------	--

10:40-11:10	Ullmo	Residual Coulomb interaction fluctuations in chaotic systems: the boundary, random plane waves, and semiclassical theory.
-------------	-------	---

Thu afternoon	SYMMETRIES AND SPINS	
----------------------	-----------------------------	--

13:30-14:00	Schomerus	Staggered level repulsion for lead-symmetric transport
-------------	-----------	--

14:10-14:40	Jacquod	Quantum chaos in mesoscopic superconductivity
-------------	---------	---

14:50-15:20	Bolte	Semiclassical theory of mesoscopic transport with spin-orbit interactions
-------------	-------	---

15:25-15:50	coffee break	
-------------	--------------	--

15:50-16:15	Harrison	The effect of spin in the spectral statistics of quantum graphs
-------------	----------	---

16:25-16:50	Nagao	Parametric Spectral Correlation with Spin 1/2
-------------	-------	---

17:00-17:25	Nishigaki	Critical statistics of Dirac spectra in SU(2) lattice gauge field theory
-------------	-----------	--

Thu evening	DEPHASING	
--------------------	------------------	--

19:30-19:55	Vanicek	Dephasing representation of quantum fidelity
-------------	---------	--

20:05-20:30	Petitjean	Dephasing in quantum chaotic transport (a semiclassical approach)
-------------	-----------	---

List

	A	B	C	D	E
1	Aizenman	Michael	Princeton	USA	aizenman@Princeton.EDU
2	Band	Ram	Weizmann	Israel	Rami.Band@weizmann.ac.il
3	Baranger	Harold	Duke	USA	baranger@phy.duke.edu
4	Ben-Shach	Gilad	McGill	Canada	gilad@ben-shach.com
5	Berkolaiko	Gregory	Texas A&M	USA	berko@math.tamu.edu
6	Bogomolny	Eugene	Orsay	France	eugene.bogomolny@lptms.u-psud.fr
7	Bohigas	Oriol	Orsay	France	oriol.bohigas@lptms.u-psud.fr
8	Bolte	Jens	Ulm	Germany	jens.bolte@uni-ulm.de
9	Braun	Petr	Essen	Germany	Peter.Braun@uni-essen.de
10	Brouwer	Piet	Cornell	USA	brouwer@ccmr.cornell.edu
11	Chalker	John	Oxford	UK	j.chalker1@physics.ox.ac.uk
12	Cohen	Doron	Ben-Gurion	Israel	dcohen@bgu.ac.il
13	Gamburd	Alexander	Santa Cruz	USA	agamburd@ucsc.edu
14	Gnutzman	Sven	Nottingham	UK	sven.gnutzmann@nottingham.ac.uk
15	Haake	Fritz	Essen	Germany	fritz.haake@uni-essen.de
16	Harrison	Jon	Texas A&M	USA	jon@math.tamu.edu
17	Jacquod	Philippe	Arizona	USA	pjacquod@physics.arizona.edu
18	Kelmer	Dubi	IAS Princeton	USA	kelmerdu@math.ias.edu
19	Kuipers	Jack	Bristol	UK	Jack.Kuipers@bristol.ac.uk
20	Macucci	Massimo	Pisa	Italy	massimo.macucci@iet.unipi.it
21	Mueller	Sebastian	Cambridge	UK	sebastian.muller@bristol.ac.uk
22	Nagao	Taro	Nagoya	Japan	nagao@math.nagoya-u.ac.jp
23	Nishigaki	Shinsuke	Shimane	Japan	mochizuki@riko.shimane-u.ac.jp
24	Nonnenmacher	Stephane	CEA Saclay	France	snonnenmacher@cea.fr
25	Novaes	Marcel	Bristol		Marcel.Novaes@bristol.ac.uk
26	Petitjean	Cyril	Regensburg	Germany	Cyril.Petitjean@physik.uni-regensburg.de
27	Rahav	Saar	Cornell	USA	srahav@umd.edu
28	Rotter	Stefan	Yale	USA	stefan.rotter@yale.edu
29	Schomerus	Henning	Lancaster	UK	h.schomerus@lancaster.ac.uk
30	Sieber	Martin	Bristol	UK	m.sieber@bristol.ac.uk
31	Stark	Harold	UCSD	USA	stark@math.ucsd.edu
32	Sukhorukov	Eugene	Geneva	Switzerland	Eugene.Sukhorukov@physics.unige.ch
33	Terras	Audrey	San Diego	USA	aterras@ucsd.edu
34	Tomsovic	Steven	Washington State	USA	tomsovic@wsu.edu
35	Ullmo	Denis	Orsay	France	denis.ullmo@lptms.u-psud.fr
36	Vanicek	Jiri	EP Lausanne	Switzerland	jiri.vanicek@epfl.ch
37	Waltner	Daniel			Daniel.Waltner@physik.uni-regensburg.de
38	Warzel	Simone	Princeton	USA	swarzel@Princeton.edu
39	Whitney	Robert	Grenoble	France	robert.whitney@ill.fr
40	Winn	Brian	Texas A&M	USA	bwinn@math.tamu.edu
41	Zirnbauer	Martin	Cologne	Germany	zirn@thp.uni-koeln.de

List

	F
1	On dynamical localization in the linear and non-linear setup
2	Groups, Graphs & isospectrality
3	Interactions in Quantum Dots: Does the RMT/Random-Wave Model Work?
4	
5	The forgotten orbits
6	Spectral statistics of a pseudo-integrable map: the general case
7	Some extreme value statistics problems in RMT
8	Semiclassical theory of mesoscopic transport with spin-orbit interactions
9	Transport through chaotic cavities: random matrix theory results reproduced from semiclassics
10	Anderson localization from classical trajectories
11	Network models for the quantum Hall effect and its generalisations
12	The conductance of small mesoscopic disordered rings: resistor network analysis of novel sparse and textured matrices
13	
14	Quantum Graphs: From Periodic Orbits to Phase Disorder
15	Generating function for level correlations in chaotic systems, semiclassical evaluation
16	The effect of spin in the spectral statistics of quantum graphs
17	Quantum chaos in mesoscopic superconductivity
18	Scarring on invariant manifolds for quantum maps on the torus
19	
20	Shot Noise Suppression in Single and Multiple Chaotic Cavities: the Role of Diffraction, Disorder and Symmetries
21	Constructing a sigma model from semiclassics
22	Parametric Spectral Correlation with Spin 1/2
23	Critical statistics of Dirac spectra in SU(2) lattice gauge field theory
24	Quantum symbolic dynamics
25	Counting statistics of quantum chaotic cavities from classical action correlations
26	Dephasing in quantum chaotic transport (a semiclassical approach)
27	The classical limit of quantum transport
28	Diffraction paths for weak localization in quantum billiards
29	Staggered level repulsion for lead-symmetric transport
30	Periodic orbit encounters: a mechanism for trajectory correlations
31	Poles of Zeta Functions of Graphs and their Covers
32	Quantum-to-Classical Crossover in Full Counting Statistics
33	What is the Riemann Hypothesis for Zeta Functions of Irregular Graphs?
34	Extreme statistics of random and quantum chaotic states
35	Residual Coulomb interaction fluctuations in chaotic systems: the boundary, random plane waves, and semiclassical theory
36	Dephasing representation of quantum fidelity
37	TBA
38	On the joint distribution of energy levels for random Schroedinger operators
39	Introduction to the Ehrenfest time
40	Quantum graphs where back-scattering is prohibited
41	On the Hubbard-Stratonovich transformation for interacting bosons