

Members of the Group

Yale (since July 2006):

PhD students:

- **Peter Orth** (4rd year)
- **Francis Song** (4rd year; codirection with Steven Girvin)
- **Ivan Stanic** (4rd year)
- **Prasenjit Dutt** (3rd year)
- **David Roosen** at Frankfurt (PhD student of Prof. Walter Hofstetter).

Postdoctoral research fellows:

- **Stefan Rachel** (Oct. 2009-2011)

Stephan Rachel has obtained a DFG postdoctoral fellowship from Germany and has chosen to come to Yale under my supervision. Stephan and I are working in the area of Dirac fermions, topological insulators and cold-atomic realizations.

- **Jens Koch**

I am collaborating with the postdoctoral fellow Jens Koch (group of Steven Girvin) in the area of Josephson junction arrays and novel correlated many-body phenomena when coupling photons to atoms.

- **Doron Bergman** (2007-2009, now at Caltech)

I have supervised the postdoctoral fellow Doron Bergman (PhD in Santa-Barbara with Leon Balents) in the area of topological zero modes in superconductors and Dirac models, cold atomic systems and high- T_c superconductors.

- **Adilet Imambekov** (now, assistant professor at Rice University)

I am collaborating with Adilet Imambekov in the area of non-equilibrium spin dynamics applied to cold atomic systems. Adilet was a postdoctoral fellow at Yale (group of Leonid Glazman).

- **Pavel Vitushinsky**

I have co-supervised the postdoctoral fellow Pavel Vitushinsky (co-direction with A. Clerk, McGill) in the area of novel phenomena in nanosystems and Non-equilibrium transport.

Visitor Scholar:

I am collaborating with the assistant professor C.-H. Chung (Taiwan), who is taking a half sabbatical in the group (Aug. 2009 - Jan 2010).

Supervisions before 2006:

PhD students:

- **Émilie Dupont** (2003/2007)

I have supervised Émilie Dupont in the area of Mesoscopic physics, Entanglement, and Quantum Computing. Émilie has obtained a position of ATER at the Université Pierre and Marie Curie, Jussieu (Paris, France).

- **Michel Pioro-Ladrière** (2002/2005)

I have supervised Michel Pioro-Ladrière in co-direction with Andy Sachrajda (NRC Ottawa) in the field of Nanoelectronics and Quantum Computation. Michel has done both theory and experiments. Michel has been a postdoctoral fellow with Tarucha in Japan. In 2006, Michel

received the price of the best PhD thesis at Sherbrooke in Science and Engineering. Michel became my successor at Sherbrooke university.

- **Georg Seelig** (co-direction with Markus Büttiker, 2000/2002)

I have supervised Georg Seelig on strongly-correlated electron problems at the mesoscopic scale, and we have written a paper together on this topics. Georg was a postdoctoral fellow at Caltech working in bio-physics and he recently obtained a Faculty position at University of Washington.

- **Urs Ledermann** (co-direction with T.M. Rice in Zürich, 1998/2000)

I co-supervised the PhD Thesis of Urs Ledermann, “Hubbard models and Superconductivity”.

Postdoctoral research fellows:

- **Andriy Nevidomskyy** (2005/2006)

I have supervised Andriy Nevidomskyy on mesoscopic physics. Andriy is now a postdoctoral fellow at Rutgers University.

- **Mei-Rong Li** (2002/2005)

I have supervised Mei-Rong Li on mesoscopic physics and more precisely on noisy quantum dots. Mei-Rong obtained an offer for a tenure track position from Hofstra University (New-York) but declined it and she is working in Mathematical Finance.

- **John Hopkinson** (2002/2004)

I have supervised John Hopkinson – PhD student from Rutgers (Piers Coleman) – on the areas high- T_c superconductors, and mesoscopic physics for two years. John then received a prestigious NSERC fellowship and decided to continue his research experience in Toronto with Hae-Young Kee. John is now at Brandon University, Canada.

Other supervisions and collaborations with postdocs:

Also, I collaborate with post-docs at other institutions: **Greg Fiete** (KITP Santa-Barbara and now professor at the University of Texas at Austin), **Angela Kopp** (Rutgers University, now working at D. E. Shaw Research in New-York), **Cristina Bena** (Saclay), **Patrik Recher** (postdoc at Stanford and now assistant professor at Würzburg, Germany).

1 Training of intermediate-qualified students

- **Sean Litsey** (Yale 2009)

I am supervising the student **Sean Litsey** on the intriguing phenomenon of ripples in graphene; Sean will pursue this project as a Senior Project.

- **Raphael Jeanneret** (Master project 2009)

I have supervised the Master student **Raphael Jeanneret** from ENS Lyon for a summer project on graphene systems, Dirac fermions, and Applications.

- **summer students** (2007)

I have supervised the first-year PhD students **Michael Kastoryano** and **Joseph Bae** at Yale.

- **Philippe Doucet-Beaupré** (COOP student 2004/2007)

I have supervised the Bachelor student **Philippe Doucet-Beaupré** on the application of the Wilson Renormalization Group (NRG) approach to the spin-boson model (or Caldeira-Leggett model). He has built a trustable and powerful Numerical Renormalization Group method. We have written a Physical Review Letter together and Philippe is now at ETH Zürich.

- **Louis Gaudreau** (COOP student 2002/2005)

I have supervised the Bachelor student **Louis Gaudreau** during his 3 COOP training courses

in the area of Quantum Computing. Louis Gaudreau was a Master student in my group, hired in co-direction with A. Sachrajda at NRC Ottawa. Louis is doing a PhD at NRC Ottawa.