

Multidisciplinary Workshop on RPA, 26-29 January 2010, UPMC, Jussieu campus, Paris

http://galileo.lct.jussieu.fr/~workshop/mediawiki/index.php/Multidisciplinary_Workshop_on_RPA

Tuesday 26 January (Esclangon Building, Amphi Durand)

9:00am Peter Schuck, *An overview of RPA from the Nuclear Physics perspective*, 40 min

Lucia Reining, *An overview of RPA from the Condensed Matter perspective*, 40 min

~10:30am BREAK 30 min

Mark Casida, *An overview of RPA from the Quantum Chemistry perspective*, 40 min

Overview discussion, 20 min

~12:30pm LUNCH

2:00pm Jan Linderberg, *Propagators, the Random Phase Approximation and Consistency Requirements*, 40 min

Jorge Dukelsky, *RPA selfconsistency and the killing condition*, 25 min

~3:30pm BREAK 30 min

Xavier Gonze, *The two faces of RPA: density functional theory and many-body perturbation theory*, 30 min

Julien Toulouse, *Adiabatic-connection fluctuation-dissipation density-functional theory based on range separation*, 30 min

~5:20pm BREAK 20 min

John Perdew, *The RPA in a Density-Functional Context, and Its Semilocal Correction*, 30 min

Adrienn Ruzsinszky, *Fully Nonlocal Correction of RPA*, 30 min

7:30pm DINNER

Wednesday 27 January (Esclangon Building, Amphi Herpin)

9:00am Andreas Görling, *Promising first results with an RPA correlation functional based on the frequency-dependent Kohn-Sham exchange kernel*, 30 min

Gustavo Scuseria, *RPA and coupled cluster theory & results using range separation*, 40 min

~10:30am BREAK 30 min

Jacek Dobaczewski, *RPA strength functions in nuclei with iterative Arnoldi diagonalization*, 20 min

Thomas Duguet, *Multi-reference Energy Density Functional calculations for nuclei*, 40 min

~12:30pm LUNCH

2:00pm Vince Ortiz, *Consistent ground states and renormalizations in ab initio propagator theory of molecules*, 30 min

Paula Mori Sanchez, *Failure of the RPA correlation energy*, 35 min

~3:30pm BREAK 30 min

János Ángyán, *Various ground state correlation energy expressions from RPA*, 30 min

Georg Jansen, *Testing various RPA ground state energy expressions for atomic correlation energies*, 20 min

~5:20pm BREAK 20 min

Peter Schuck, *Extended RPA from time dependent density matrix theory*, 30 min

Kazuhiro Yabana, *Real-time calculations for RPA response and nonlinear dynamics*, 30 min

7:30pm DINNER

Thursday 28 January (Esclangon Building, Amphi Herpin)

9:00am Danilo Gambacurta, *Collective Excitations within the Second RPA*, 30 min

Panagiota Papakonstantinou, *Large-scale Second-RPA calculations for collective excitations*, 35 min

~10:30am BREAK 30 min

Calvin Johnson, *How approximate is the random phase approximation? Comparing RPA against full configuration-interaction calculations*, 25 min

Peter Ring, *RPA in superfluid nuclei*, 40 min

~12:30pm LUNCH

2:00pm Alex Tkatchenko, *Dispersion coefficients from RPA: Implications for intermolecular interactions*, 25 min

John Dobson, *How reliable is the RPA for van der waals (dispersion) interactions?*, 30 min

~3:30pm BREAK 30 min

Roger Balian, *Variational evaluation of fluctuations and correlations: extended mean-field and RPA approach*, 40 min

Miquel Huix-Rotllant, *Time-Dependent Density-Functional Theory Kernels From Many-Body Perturbation Theory*, 25 min

~5:20pm BREAK 20 min

Nguyen Dinh Dang, *The Selfconsistent Quasiparticle RPA and Its Description of Thermal Pairing Properties in Nuclei*, 30 min

Doru Delion, *Self-Consistent RPA in a three-level Lipkin model and the Goldstone mode*, 30 min

7:30pm DINNER

Friday 29 January (Esclangon Building, Amphi Durand)

9:00am Andy Teale, *RPA and the Adiabatic Connection*, 30 min

Andreas Grüneis, *Wave function based correlation in solids: RPA and beyond*, 30 min

Henk Eshuis, *How accurate is RI-RPA? Quality of resolution-of-the-identity methods for RPA correlation energies*, 20 min

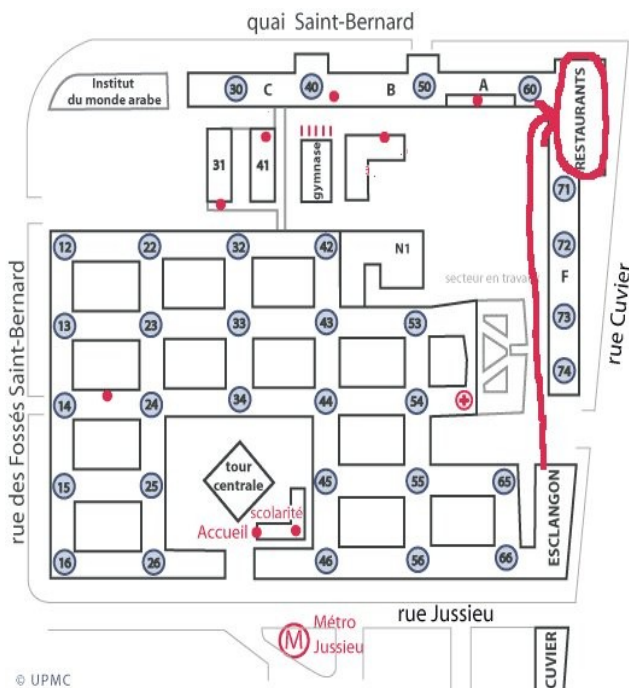
Informal discussions (Amphi Durand or Building 55/65, 1st floor, Room 101)

~12:30pm LUNCH

2:00pm Informal discussions (Amphi Durand or Building 55/65, 1st floor, Room 101)

Lunches: You can have lunch at the university cafeteria (see below) or go to restaurants near Jussieu.

University cafeteria:



When you enter the building, first buy a 8-euro ticket at the ticket office on the extreme right. Then, go to the staff cafeteria ("Restaurant administratif") to the extreme left. You can have one main dish, plus 3 additional small dishes (starters and desserts). Drinks (except for tap water) are not included. Note that you cannot pay inside the cafeteria but you can only use a ticket.

Group Dinners (in priority for those who registered online): we will meet at 7:00pm at the main entrance of Jussieu campus or at 7:30pm at the restaurant.

Monday 25: *Les Jardins de Saint Germain*, 14 Rue du Dragon, 75006 Paris. Phone: +33 1 45 44 72 82 (24 people max)

Tuesday 26: *Tugalik*, 4 rue Toullier, 75005 Paris. Phone: +33 1 43 54 41 49 (35 people max)

Wednesday 27 & Thursday 28: a list of restaurants for smaller groups will be proposed.

