

## Program of the ECT\* workshop on

### “Open Quantum Systems: From atomic nuclei to ultracold atoms and quantum optics”

#### Monday

8:30 – 9:00	Registration
9:00 – 9:15	Welcome from ECT* Director and Opening Remarks
9:15 – 10:15	A. Richter (45+15 min) “Chaotic Scattering without and with Time Reversal Violation in Open Microwave Billiards Modelling Nuclei”
10:15 – 10:45	Coffee
10:45 – 11:30	M. Ploszajczak (35 + 10 min) “The Gamow Shell Model: Towards the unified theory of nuclear structure and reactions”
11:30 – 12:15	A. Gade (35 + 10 min) “Experimental studies of the continuum in nuclei”
12:15 – 14:00	Lunch
14:00 – 14:45	P. Navratil (35 + 10 min) “Ab Initio Studies of Weakly Bound and Unbound Light Nuclei”
14:45 – 15:30	G. Jansen (35 + 10 min) “Drip line physics from chiral Hamiltonians”
15:30 – 16:00	Coffee
16:00 – 16:45	L. Platter (35 + 10 min) “Uncertainty estimates for pp-fusion”

#### Tuesday

9:00 - 10:00	M. Weitz (45+15 min) “Calometry of a Bose-Einstein-condensed photon gas”
10:00 – 10:30	Coffee
10:30 – 11:15	S. Montangero (35 + 10 min) “Recent advancements in tensor network methods”
11:15 – 12:00	M. Lebental (35 + 10 min) “Quantum chaos and microlasers”
12:00 – 14:00	Lunch
14:00 – 14:45	N. Zinner (35 + 10 min) “Dynamics of strongly interacting few-body systems in 1D”
14:45 – 15:30	M. Gianfreda (35 + 10 min) “PT-symmetric interpretation of open quantum and classical systems: an overview and some examples”
15:30 – 16:00	Coffee
16:00 – 16:45	A. Vairo (35 + 10 min) “Quarkonium suppression in heavy-ion collisions: an open quantum system approach”

## Wednesday

- 9:00 – 10:00 W. Nazarewicz (45+15 min)  
“Description of weakly bound and unbound nuclear and atomic states using the complex-energy approach”
- 10:00 – 10:30 Coffee
- 10:30 – 11:15 A. Volya (35 + 10 min)  
“Exploring the physics of unstable many-body states in atomic nuclei”
- 11:15 – 12:00 A. Tumino (35 + 10 min)  
“Triple alpha resonances in the  $6\text{Li}+6\text{Li}$  interaction at low energy and possible link to the Efimov trimers”
- 12:00 -14:00 Lunch

## Thursday

- 9:00 – 10:00 W. Schleich (45+15 min)  
“Is the Riemann zeta function a Schrödinger cat or an open quantum system?”
- 10:00 – 10:30 Coffee
- 10:30 – 11:15 R. Doerner (35 + 10 min)  
“Helium Dimers and Trimers and the Efimov state of  $\text{He}_3$ ”
- 11:15 – 12:00 G. Morigi (35 + 10 min)  
“Buckling Transitions and Clock Order of Two-Dimensional Coulomb Crystals”
- 12:00 – 14:00 Lunch
- 14:00 – 14:45 A. Kievsky (35 + 10 min)  
“Saturation properties of helium drops using a gaussian potential model”
- 14:45 – 15:15 C. Schmickler (25 + 5 min)  
“Tetramer Bound States in Heteronuclear Systems”
- 15:15 – 15:45 Coffee
- 15:45 – 16:15 M. Zimmermann (25 + 5 min)  
“Spectral methods: A tool for Few-Body Physics”
- 16:15 – 16:45 T. Oishi (25 + 5 min)  
“Time-dependent framework for two-particle tunneling process”

## Friday

- 9:00 – 9:45 D. Phillips (35 + 10 min)  
“Single-nucleon halos in an effective field theory approach”
- 9:45 – 10:30 P. Capel (35 + 10 min)  
“Including ab initio structure information within an accurate reaction model via effective field theory”
- 10:30 – 11:00 Coffee
- 11:00 – 11:45 L. Fortunato (35 + 10 min)  
“Validation of a new diagonalization scheme in 1D on the Calogero model”
- 11:45 – 12:00 Closing
- 12:00 Lunch