

## QMath11 - MONDAY, SEPTEMBER 6

| Time        | Plenary / Session 1 / General   | Time        | Session 2   | Time        | Session 3  |
|-------------|---|-------------|---|-------------|--|
|             | AULA  |             | A1  |             | A2   |
|             | Plenary session   |             |   |             |  |
| 09.00-09.15 | P.Exner, UHK representatives<br>Conference opening  |             |   |             |  |
|             | Plenary session<br><i>Chair: Arne Jensen</i>  |             |   |             |  |
| 09.15-10.15 | Mathieu Lewin<br>Renormalization of Dirac's polarized vacuum  |             |   |             |  |
| 10.15-10.45 | <i>Coffee break</i>   |             |   |             |  |
|             | Plenary session<br><i>Chair: Rafael Benguria</i>  |             |   |             |  |
| 10.45-11.45 | Alessandro Giuliani<br>Renormalization group for interacting electrons on the honeycomb lattice                           |             |   |             |  |
|             | Plenary session<br><i>Chair: Thomas Hoffmann-Ostenhof</i>   |             |   |             |  |
| 11.50-12.50 | Robert Sims<br>Lieb-Robinson bounds in quantum many-body physics  |             |   |             |  |
| 12.50-14.15 | <i>Lunch break</i>  |             |   |             |  |
|             | Invited talks QC<br><i>Chair: Tomaz Prosen</i>  |             | Contributed talks ST<br><i>Chair: Rupert Frank</i>  |             | Contributed talks QFT<br><i>Chair: Benjamin Schlein</i>                            |
| 14.15-14.55 | Lea Ferreira dos Santos<br>Onset of quantum chaos in one-dimensional many-body systems and its relation to thermalization | 14.15-14.45 | Ivan Veselić<br>Fractional moment method for non-monotone models  | 14.15-14.45 | Edwin Langmann<br>Exact solution of a 2+1 dimensional interacting fermion model    |
| 15.00-15.40 | Stephane Nonnenmacher<br>Quantized open chaotic systems   | 14.50-15.20 | Vladimir Lotoreichik<br>Weak disorder in the Kronig-Penney model: stability of the absolutely continuous spectrum and eigenvalues in gaps | 14.50-15.20 | Annalisa Panati<br>Infrared aspects of a model of QFT on a static space time       |
| 15.45-16.25 | Klaus Richter<br>Classical orbit correlations: the key for understanding universality in quantum chaotic system           | 15.25-15.55 | Denis Borisov<br>Homogenization of the waveguides with frequent alternation boundary condition  | 15.25-15.55 | Petr Siegl<br>Krein spaces in de Sitter quantum                                    |
|             |   | 16.00-16.30 | Helena Šediváková<br>Effective Hamiltonian in curved quantum waveguides as a consequence of strong resolvent convergence                  | 16.00-16.30 | Jaroslav Dittrich<br>Topological charges for finite energy fields in a sigma-model |
| 16.30-17.00 | <i>Coffee break</i>   |             |   |             |  |
|             | Contributed talks QI<br><i>Chair: Sergey Naboko</i>   |             | Contributed talks ST<br><i>Chair: Michael Gruber</i>  |             |  |
| 17.00-17.30 | Martin Fraas<br>Optimal parametrizations of adiabatic paths   | 17.00-17.30 | Igor Popov<br>Spectral problems and quantum features of fluid flow in nanotube  |             |  |
| 17.35-18.05 | Claudia Zander<br>Uncertainty relations and entanglement in fermion systems   | 17.35-18.05 | Tomáš Kalvoda<br>Resonant cyclotron acceleration of particles by a time periodic singular flux tube                                       |             |  |
| 18.10-18.40 | Mahdi Rezaei Karamati<br>Molecular solution for the subset-sum problem on DNA-based quantum computing                     | 18.10-18.40 | Hiroaki Niikuni<br>On the degenerate spectral gaps of the one-dimensional Schrödinger operators with periodic point interactions          |             |  |