

Public Presentation at the Faculty of Physics Date: 28 September 2022

Place: Ernst-Mach- lecture hall, 2nd floor, Boltzmanngasse 5, 1090 Wien

| Time Slot | Name | Topic | Supervisor |
|--------------------|-----------------------------|--|--|
| 9:00-9:10 | -- | Introduction by Thomas Pichler | |
| 9:10-9:25 | Salazar Mejia Joshua Matheo | Analysis and design of magnetic field sensors with zero-offset using Spin-Orbit-Torque (SOT) effects | Süss, Dieter |
| 9:25-9:40 | Ragni Stefano | Anharmonic Polaron Hamiltonians by Quantum Diagrammatic Monte Carlo | Franchini, Cesare |
| 9:40-9:55 | Ruffa Ines | Differential treatment of boosted top quark decays | Hoang, André H. |
| 9:55-10:10 | Medina Sanchez Nicolas | Information theoretic foundations of quantum theory | Dakic, Borivoje |
| 10:10-10:40 | | Highlightvortrag | |
| 10:40-11:10 | | COFFEE BREAK | |
| 11:10-11:25 | Schmiedmayer, Bernhard | Derivative learning for tensorial quantities: IR spectra from first principles | Kresse, Georg |
| 11:25-11:40 | Joudi Wael | Direct correlation between the exact atomic structure of 2D materials and their macroscopic properties | Kotakoski, Jani |
| 11:40-11:55 | Zykov, Ilia | Development of the Optical Near-field Electron Microscope and its application in lipids dynamics study | Juffmann, Thomas |
| 11:55-12:10 | Ranalli Luigi | Ab-initio calculations for anharmonic polarons in hydrides | Franchini, Cesare |
| 12:10-12:40 | | Highlightvortrag | |
| 12:40-13:40 | | LUNCH BREAK | |
| 13:40-13:55 | Corrias Marco | Computer vision techniques for processing and analysis of surface microscopy images | Franchini, Cesare |
| 13:55-14:10 | Bengyat Ofek | Gravity Induced entanglement and its Implications about quantum gravity | Brukner, Caslav Christodoulou, Marios (Mitbetreuung ?) |
| 14:10-14:25 | Matthewman, Marc Nicholas | Particle Shower Reconstruction in High Multiplicity Environments | Waltenberger, Wolfgang Brondolin, Erica (Cern) |
| 14:25-14:40 | Humer, Moritz | Auxiliary Field Quantum Monte Carlo Method in the Projector Augmented-Wave Method | Kresse, Georg |
| 14:40-14:55 | Jafarian, Hanieh | High-resolution Imaging of Surface Dynamics | Juffmann, Thomas |