

Study Days Zoom conference 09./10.6. 2021

Wednesday 09.06.2021

Zoom meeting number will be sent via email shortly before the meeting starts

Chair: Andreas Baer

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| 13:00 - 14:00 | Philipp Hansmann Emergent phenomena in quantum many-body systems: From high-Tc cuprates to ad-atoms on silicon |
| 14:00 - 14:30 | Research project Selina Noecker Electronic properties of monolayer transition metal dichalcogenides from first principles |
| 14:30 - 15:15 | Master thesis Torsten Weber Towards a periodic-orbit theory of Jackiw-Teitelboim quantum gravity I: Introduction to JT/RM |

Coffee break

Chair: Aaron Müller

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| 15:45 - 16:30 | Bachelor thesis Carolyn Echter Periodic-orbit aspects of Selberg's trace formula in the context of Jackiw-Teitelboim gravity |
| 16:30-17:00 | Research project Daniel Riese Diagrammatic expansion of conditional correlators in JT-gravity |
| 17:00-17:30 | Research project Benedikt Baumgartner Many body localization in non-interacting random model |

Coffee break

Chair: Christoph Strunk and Kristina Giesel

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| 17:45 | General discussion |
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Thursday 10.06.2021

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Chair: Max Fahn

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| 10:00 - 10:45 | Master thesis Lea Lenke Higher order series expansion of non-Hermitian quan- tum spin models |
| 10:45 - 11:30 | Bachelor thesis Lukas Schamriß Topological quantum phase transition in the trilayer Ising toric code |

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| 11:30 - 12:15 | Bachelor thesis Maximilian Bayer Low-field series expansion of the long-range transverse-field Ising model on the square lattice |
| | Lunch break |
| Chair: Josef Freudenstein | |
| 13:15 - 14:00 | Bachelor thesis Johannes Große Spin Observables in Loop Quantum Gravity |
| 14:00 - 14:30 | Research project Julian Siegl Lead phonons broadening for an Anderson impurity |
| | Coffee break |
| Chair: Manuel Meierhofer | |
| 15:00 - 15:45 | Bachelor thesis Philipp Schmidt A study of multi-frequency Brillouin memory devices |
| 15:45 - 16:30 | Bachelor thesis Lukas Hennig The influence of the detector calibration on the reconstruction performance of Graph Neural Networks in KM3NeT |
| 16:30 - 17:00 | Research project Denise Lichthardt Characterizing gel networks with artificial intelligence |