

Quantum Nonlocality From Classical Locality to Quantum Teleportation

August 28–31, 2016
Kloster Schoental

The idea of the Schoental Workshop is to offer a platform for PhD students from all areas of physics to engage in discussion over topics that go beyond the normal curriculum of a lecture. The workshop is composed of discussion rounds which are conducted by the participants and aims to provide an environment for extensive immersion into the subject. Invited lecturers act as participants and offer their expertise whenever needed.

A meeting with all participants will be held one month before the workshop to distribute topics, discuss administrative points and provide suitable literature. Groups of two to three students will prepare one topic in more detail in order to give a short introduction and lead the discussion afterwards.

TOPICS

- What are the axioms of quantum mechanics?
- What are possible interpretations of QM?
- What is the EPR paradox and does it contradict classical locality?
- What is Bell's Theorem? How can one verify it experimentally?
- What are applications of non-locality? (Quantum teleportation, quantum encryption etc.)

INVITED GUESTS

Prof. Dr. Selim Jochim
Prof. Dr. Björn Malte Schäfer

REGISTRATION

Please apply through
<https://zah.uni-heidelberg.de/gravity/activities>.
No registration fees for students of the HGSFP.

ORGANISATION

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