

# Seminar Invitation:

## The Tunneling Time Limit

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Tunnel diodes are currently the fastest electronic devices achieving a fundamental mode oscillation frequency of 1.96 THz at room temperature. Nevertheless, a description of the tunneling time is missing as a possible frequency limit of this approach. **Oliver Passon** says: "The quantum-mechanical description of the tunneling effect is not helpful because it is based on an analysis of the stationary, i. e. time-independent Schrödinger equation. In fact, the tunneling time in quantum mechanics is also not found even if the time-dependent Schrödinger equation is considered. Moreover, not even a mean time can be assigned to the tunneling process. Formally, this reflects the fact that within quantum mechanics the time is not observable, i.e. it is not assigned to be an operator."

Oliver Passon and leading tunnel diode experts are seeking for an answer whether the Bohmian mechanics instead of the classical quantum mechanics will give an answer.

13. Feb. 2019,  
Gerhard-Mercator Haus  
1:30 pm – 4:45 pm