![Universität Leipzig logo] **UNIVERSITÄT LEIPZIG**

Fakultät für Physik und
Erdsystemwissenschaften

Prof. Dr. J. Deiglmayr
Prof. Dr. I. Sodemann

Physics Colloquium

Tuesday, 23 Apr 2024 at 16:30

Dr. Alexander Blum

MPI Wissenschaftsgeschichte Berlin

**Matrices vs. wave functions:
Schrödinger's notebooks and his equivalence proof**

In 1925/26, Werner Heisenberg developed matrix mechanics and Erwin Schrödinger developed wave mechanics, which ultimately came to be seen as two formulations of the same theory, quantum mechanics. In my talk, I will reconstruct – through a deep dive into his extensive notebooks – Schrödinger's difficult path to his celebrated equivalence proof – a physical and mathematical connection between these two theories, which looked so different at first glance. This is joint work with Martin Jähnert (Uni Regensburg).
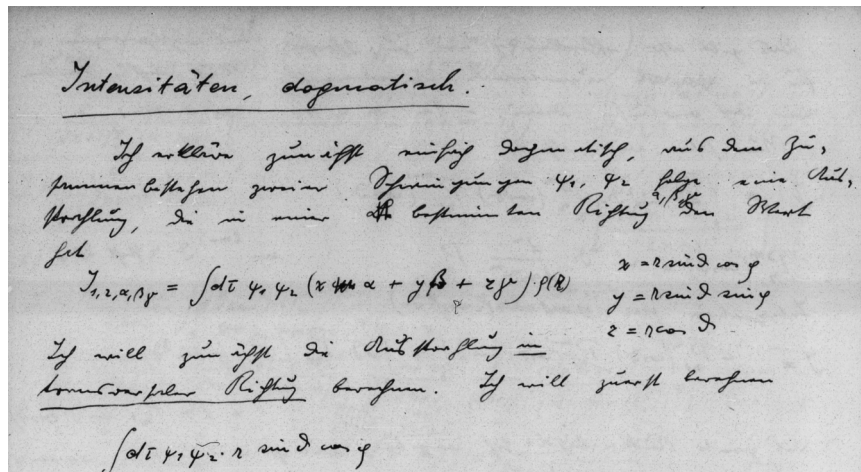
Venue: Universität Leipzig, Faculty of Physics and Earth Sciences
04103 Leipzig, Linnéstraße 5, Small Lecture Hall

Everyone is welcome to a reception with coffee, drinks and cookies in the Aula following the talk.