



UNIVERSITÄT
LEIPZIG

Fakultät für Physik und Geowissenschaften

Prof. Dr. J. Deiglmayr
Prof. Dr. J. Vollmer

Physics Colloquium

Tuesday, 17 January 2023 at 17:00

Prof. Romana Schirhagl

Department of Biomedical Engineering - University of Groningen

Living cells responding to stress - NV-center-based sensing in biological systems

Free radicals play a key role in many different processes in biology including cell communication, maturation and aging. However, they are also usually elevated whenever there is something wrong in a cell. Despite their relevance we know relatively little about these molecules since they are reactive and short lived.

My team uses relaxometry with NV centers to solve this problem. More specifically, we use nanodiamonds with large ensembles of NV centers which we can bring to specific regions within a cell. This allows us to assess radical generation locally and identify which cell organelles are responsible for the radical generation or under which conditions this process occurs.



Venue: Universität Leipzig, Faculty of Physics and Earth Sciences
04103 Leipzig, Linnéstraße 5, Lecture Hall for Theoretical Physics

Before the lecture, coffee and cookies are offered in front of the lecture hall.

We kindly ask you to observe the currently applicable measures for infection protection.