

Dominik Lentrodt

PhD Student



Email dominik.lentrodt@mpi-hd.mpg.de

Website www.mpi-hd.mpg.de/personalhomes/lentrodt

Address Max-Planck-Institut für Kernphysik, Saupfercheckweg 1, 69117 Heidelberg, Germany

Educational history

- 2017– **PhD Student**, *Max-Planck-Institut für Kernphysik*, Heidelberg, Germany.
Advisor: apl. Prof. Dr. Jörg Evers
Secondary advisors: Prof. Dr. Christoph H. Keitel, Prof. Dr. Thomas Pfeifer
- 2016–2017 **4+4 Program of the Heidelberg Graduate School for Fundamental Physics**,
Max-Planck-Institut für Kernphysik and University of Heidelberg, Germany.
- 2012–2016 **MSc, BA Hons Physics**, *Gonville & Caius College, University of Cambridge*, UK.

Publications

1. K. P. Heeg, A. Kaldun, C. Strohm, P. Reiser, C. Ott, R. Subramanian, D. Lentrodt, J. Haber, H.-C. Wille, S. Goerttler, R. Ruffer, C. H. Keitel, R. Röhlberger, T. Pfeifer and J. Evers, “Spectral narrowing of x-ray pulses for precision spectroscopy with nuclear resonances”, *Science* **357**, 375-378 (2017).
2. D. Lentrodt and J. Evers, “Ab Initio Few-Mode Theory for Quantum Potential Scattering Problems”, *Phys. Rev. X* **10**, 011008 (2020).
3. D. Lentrodt, K. P. Heeg, C. H. Keitel and J. Evers, “Ab initio quantum models for thin-film X-ray cavity QED with Mössbauer nuclei”, *Phys. Rev. Research* **2**, 023396 (2020).
4. K. P. Heeg, A. Kaldun, C. Strohm, P. Reiser, C. Ott, R. Subramanian, D. Lentrodt, J. Haber, H.-C. Wille, S. Goerttler, R. Ruffer, C. H. Keitel, R. Röhlberger, T. Pfeifer and J. Evers, “Coherent x-ray-optical control of nuclear excitons”, *Nature*, **590**, 401–404 (2021).

Scientific proposals and large-scale facility experiments

- 2018–2019 **Co-proposer and Co-investigator of Proposal I-20180786 at PETRA III (Hamburg)**.
- 2017–2021 **Co-investigator of 6 experiments at PETRA III (Hamburg) and ESRF (Grenoble)**.