Albert-Ludwigs-Universität Freiburg

Prof. Frank Stienkemeier



In the group of Molecular- and Nanophysics (<u>www.nanophysics.uni-freiburg.de</u>) we are looking for motivate students for a

## **Bachelor/Master/Teacher Graduate Thesis**

interested in exciting projects in the field of

## **Strong Field Ionization of Helium Droplets.**

When a helium droplet is exposed to a strong femtosecond laserpulse, it can be transferred to a nanoplasma state. This state evolves in time and results in a coulomb explosion of the droplet, where high energetic electrons and ions are created. In this project we investigate and optimize this process by doping the helium droplet with different atomic or molecular species.

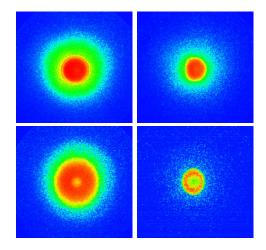




We are looking for highly motivated students with an interest in experimental Atomic, Molecular and Optical Physics (AMO). Experience in the use of high-vacuum equipment is advantageous. It is appreciated if the candidate is familiar with at least one programming language.

The project is embedded in the DFG-funded Priority Programme "Quantum Dynamics in Tailored Intense Fields" (<a href="https://www.qutif.de">http://www.qutif.de</a>). It is a collaboration between the Max-Planck-Institute for Nuclear Physics (MPIK) in Heidelberg, Germany and Aarhus University, Denmark. This collaboration opens the stage for lots of discussions with different people from the same or near research fields. The Priority Programme

"Qutif" hosts several conferences and workshops every year, where the student is encouraged to participate and contribute.



For further information please contact

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