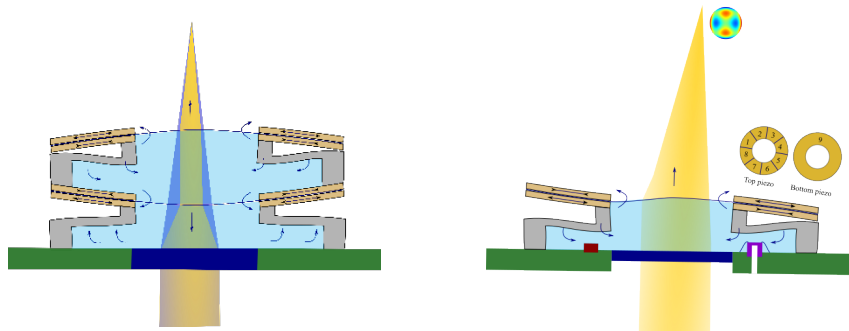


Postdoctoral researcher position - 2 years

Adaptive optics for 2-photon microscopy without any moving stages



Who we are:

The Department of Microsystems Engineering (IMTEK) at the University of Freiburg is one of the largest research institutes dedicated to microsystems engineering. One research and teaching focus lies in optics and photonics. The Laboratory for Microactuators is working on the integration of microactuators into adaptive optical elements and how to apply these elements in optical set-ups.

Your Task:

We aim to implement a fully adaptive 2-photon microscope, allowing to look deeper into tissue by using infrared light. Our long term experience in designing adaptive lenses and tunable prisms provides the basis for the fully adaptive f-theta objective which will avoid any movable stages. We aim for an objective with a large numerical aperture at minimum aberrations and compatible with very short IR laser pulses.

The research is part of a collaborative DFG-funded project. Our partners will take over the role of controlling the adaptive objective using machine learning and evaluating it on biological specimen.

Your qualification:

We are looking for candidates (m/f/d) with an excellent doctoral degree in physics or engineering, with solid knowledge in at least two of the following qualifications:

- good knowledge in electrical/mechanical engineering and/or optics
- experience with simulation software (ANSYS, COMSOL, ZEMAX) and LabView
- hands on experience in manufacturing or microsystems processes

Very good English language skills and also basic German knowledge are mandatory.

What we offer

We offer an exciting research topic in a collaborative excellent project. The postdoc position is to be filled as soon as possible for a duration of 2 years, and salary will be paid according to state regulations for the public sector (TVL). You will find modern laboratory equipment and a highly qualified, multicultural team, which will cooperate and support you.

Please submit your full application documents to the following address until September 10, 2023. If you have any questions, feel free to get contact us beforehand.

Prof. Ulrike Wallrabe,

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