



PhD position

Dual comb spectroscopy in the mid infrared

We are offering a PhD position focused on the rapidly developing field of optical frequency combs.

This is what it is about

Frequency combs are lasers emitting at multiple well-defined wavelengths simultaneously, i.e. the emission spectrum is remindful of a comb. For the concept of frequency combs Theodor W. Hänsch was awarded the Nobel Prize in Physics in 2005. Nowadays various groups worldwide work on their implementations for various applications.

In the frame of this project, we aim to make frequency combs ready for spectroscopy and gas detection via optical frequency conversion. We want to convert frequency combs efficiently to the wavelengths required, e.g. for the detection of trace gases in the atmosphere.

Your future with us

Together with you, we want to advance this area of photonics. Join us in working on an exciting project embedded into a joint German-French research initiative. Together, we cover a very broad scope having internationally leading basic researchers on board as well as a team known for bringing novel concept out of the lab into industrial applications.

The successful candidate will have a strong background in physics, photonics, microsystems engineering, or a related field, and hold a master's degree in a relevant discipline. They should possess excellent communication skills and the ability to work independently and as part of a team.

We offer an exciting research topic, excellent equipment and intense supervision. Furthermore, you will have the opportunity to engage in a collaboration with colleagues of the Fraunhofer Institute for Physical Measurement Techniques IPM and of the Laboratoire Interdisciplinaire Carnot de Bourgogne and to attend leading scientific conferences.

Join our team

This is an exceptional opportunity to join a vibrant and dynamic research group working at the forefront of the application of optical frequency combs.

Take your career to the next level and make a significant contribution to this field. Apply today!

Please send your application including a statement letter, curriculum vitae and certificates to PD Dr. Ingo Breunig (ingo.breunig@imtek.de). He will also gladly answer questions regarding this announcement.