

DLR is Germany's national research center for aeronautics and space as well as Germany's Space Agency. Approximately 6500 people at 13 locations work in the research areas aeronautics, space, transport, energy and security.

The **Helmholtz Research School on Security Technologies** at the German Aerospace Center (DLR) and the Technical University Berlin offers

PhD scholarship (m/f) on terahertz imaging for security applications

The mission of the Research School is to contribute to civil security by excellent research and by training and education of young researchers in technology fields which are highly relevant for civil security.

Your Task: In the past years terahertz waves, also called „T-Rays“, attracted a lot of attention. With THz imaging systems it is possible to look through clothing and other materials in order to detect hidden weapons or explosives. Your task is to develop a novel system for real-time terahertz imaging. The system is based on a quantum-cascade laser and sensitive, quantum-noise limited detection. Modern imaging approaches such as compressive sampling and advanced stereo algorithms as well as the combination of imaging with spectroscopy will be explored. The performance of the imaging system will be evaluated for different security application scenarios.

Your Qualification:

- study in physics, finished with high marks and a Diploma or Master degree that qualifies for starting a PhD study in Germany. Candidates who are about to earn their degree are welcome to apply.
- fluently spoken and written English is essential
- basic laboratory experience
- high motivation and dedication for scientific working
- ability to work creatively in a multidisciplinary team

Interested? More information and the details of the application procedure are available at www.dlr.de/research_school_security

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