The Collaborative Research Center “Wave phenomena – analysis and numerics” (CRC 1173), is currently seeking to recruit, as soon as possible, limited to three years, a

**Doctoral Researcher (f/m/d – 75%)**

Project A13 “Dispersive estimates for wave equations with low regularity coefficients”

The CRC has been funded by the German Research Foundation (DFG) since 2015. Its goal is to analytically understand, numerically simulate, and eventually manipulate wave propagation under realistic scenarios by intertwining analysis and numerics.

The Project A13 “Dispersive estimates for wave equations with low regularity coefficients” ([www.waves.kit.edu/A13](http://www.waves.kit.edu/A13)) aims at developing a new approach to Strichartz and dispersive estimates that exploits structural properties of the operators involved rather than solely relying on regularity properties of the coefficients. Our new approach is based on generalized Fourier integral operators through operator theory.

We seek a doctoral researcher with keen interest in analytic aspects of wave propagation and a strong background in harmonic analysis, dispersive partial differential equations, or operator theory. Your work will focus on the development of dispersive estimates as well as Strichartz estimates in low regularity settings. You will closely cooperate with peers from analysis to advance and refine existing model cases and explore novel approaches. You will have the opportunity to attend conferences, workshops and summer schools. Engagement in teaching is encouraged.

We provide an inspiring, attractive, interdisciplinary, and internationally recognized scientific environment with access to excellent facilities of the KIT, a wide scope of advanced training options within our integrated research training group, and flexible working time models. Our CRC aims at the implementation of equal opportunities, it promotes diversity and supports persons with childcare or eldercare responsibilities as well as persons with disabilities. Funds for travel and guests are available through the CRC.

**The following qualifications are required** seeking your consideration for this position:

- Excellent Master or an equivalent degree in Mathematics.
- Strong background in harmonic analysis, dispersive partial differential equations, or operator theory.
- We expect excellent writing and oral communication skills along with the ability to work independently within an international team.

Applications should include a cover letter, a curriculum vitae, and copies of degree certificate(s).

**We offer** an attractive and modern workplace with access to excellent facilities of KIT, diverse and responsible tasks, a wide scope of advanced training options, supplementary pension with the VBL (Pension Authority for Employees in the Public Service Sector), flexible working time models, a job ticket (BW) allowance, and a cafeteria/canteen.

We prefer to balance the number of employees (f/m/d). Therefore, we kindly ask female applicants to apply for this job. If qualified, severely disabled persons will be preferred.

Please apply online via [office@waves.kit.edu](mailto:office@waves.kit.edu) until **August 29th, 2021**. For further information, please contact Prof. Dr. Dorothee Frey, dorothee.frey@kit.edu, or Ms Laurette Lauffer, Laurette.lauffer@kit.edu.

Further details can be found on our website: [www.kit.edu](http://www.kit.edu).

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