



### Infinite-Dimensional Systems group receives DFG grant for research in the mathematical sciences

**27.01.2025** | The 12-months project, called 'Gaining Knowledge about Networked Pipe-Flow Systems: Spectral Properties for Systems with Constant Flow and Under Various Connectivity Conditions' brings together Professor Mahinzaeim, Head of the Infinite-Dimensional Systems group at the Research Center for Complex Systems, and Dr Boitumelo Moletsane from the University of the Witwatersrand, AIMS South Africa, to collaborate on gaining more knowledge about networked pipe-flow systems, specifically the spectral properties under various connectivity conditions. They will also explore how this knowledge could lead to the development of a collaborative project.

The project is the outgrowth of a pilot study funded under a prior EXPLOR grant by the Stiftung KESSLER+CO für Bildung und Kultur and will strengthen the findings and their applications in scientific and industrial settings.

The grant will support a three-months duration guest visit by Dr Moletsane to Aalen University to intensify collaboration with Professor Mahinzaeim's group for development work during the prospective collaborative project.

The AIMS-DFG Cooperation Visits Programme references the African Institute for Mathematical Sciences (AIMS), which is a pan-African network of centres of excellence located in Cameroon, Ghana, Rwanda, Senegal, and South Africa. The aim of the programme is to deepen and strengthen cooperation between African and German researchers in the field of mathematical sciences and to initiate specific joint project ideas. The programme aligns with Aalen's strategy to develop its international academic partnerships.

Read more about the Infinite-Dimensional Systems group [here](#).