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German Academic Exchange Service

CALL FOR APPLICATIONS

Two Postdoctoral Fellowships in **Partial differential equations and Stochastic analysis**

At the African Institute for Mathematical Sciences (AIMS) in Senegal

The German research chair, Dr. Mouhamadou Sy at AIMS Senegal, in collaboration with Prof. Martina Hofmanova at Bielefeld University, Germany, is offering a postdoctoral fellowship at AIMS Senegal research center in Mbour. This fellowship is made available and funded by the DAAD to promote international academic exchange as well as educational co-operation with developing countries through a variety of funding and scholarship programs.

Scientific interests

We are looking for excellent candidates with strong interest and background in research in **Partial differential equations and Stochastic analysis**. The research topics will be mathematical, motivated by various applications such as in fluid dynamics, turbulence, propagation of waves in nonlinear media, and understanding chaotic behaviors and their applications.

Among others, we are seeking for candidates with a strong interest and background in one of the following areas:

1. Analysis of partial differential equations
2. Stochastic analysis
3. Dispersive and nonlinear waves
4. Fluid dynamics

Eligibility

- A PhD degree in mathematical sciences (PhD graduation at most 6 years before the start of the fellowship).
- **Strong interest and background** in one of the areas indicated above.
- Previous research in the areas indicated above is a strong plus.
- Good coding skills (eg., Python, Matlab/Mathematica and similar) are a plus.

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- Academic excellence and track record in conducting research.
- Good communication skills in English.

Female candidates and candidates from less privileged regions or groups are especially encouraged to apply.

Scholarship benefits

The postdoc fellowship is tenable for one year, contingent on satisfactory progress, and could be extended for one more year.

Monthly scholarship is 1.850 EUR (during stays in Senegal) and 2.000 EUR (during research stays in Germany).

Travel costs (if applicable) are covered.

Health insurance costs are covered.

Additional benefits are made available for mobility when commencing and finishing the scholarship in Senegal and for research stay at Bielefeld University during the course of the doctoral project.

The positions are expected to start as soon as practicable, aiming for January 1st, 2025.

Fellowship holders

Successful fellow is expected to conduct research in the thematic areas indicated in the section "Scientific interests". They are expected to publish their results in peer-reviewed journals and conferences, and to be actively engaged in the research activities of the German Research Chair, as well as contribute to the implementation of the cooperation between the Chair and Bielefeld University. Fellow is also expected to have some involvement in the AIMS Senegal academic programs. Fellow will be affiliated with AIMS Senegal, but they will be encouraged to conduct scientific visits in Germany.

Application documents

- Research statement (2 pages maximum), concretely stating the candidate's research interests and motivations.
- Curriculum Vitae.
- Copy of the PhD certificate.
- Copy of passport or national ID.

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- Two reference letters to be submitted directly to the email address below by the referees by the deadline. **The application is not complete without the references.**

Application instructions

Please send completed applications by email to grc.aims.23@gmail.com with subject line containing "DAAD postdoc application". Applicants should submit the documents in **a single PDF file**. The applications not according to those instructions risk rejection without reading.

Deadline

The deadline for the applications is **December 1, 2024**.

For questions, please email grc.aims.23@gmail.com.

Please see <https://m-sy.org> for more details and updates.

DISCLAIMER: AIMS Senegal and Bielefeld University reserve the right to disqualify ineligible, incomplete and/or inappropriate applications. AIMS also reserves the right not to make an appointment to the position as advertised or to extend the deadline for applications. Only successful applicants will be contacted.



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