



Multi-physics Simulation of a CO₂ Amplification Length

The Numerics Research Group at the IAG is looking for a research associate at the doctoral level for an exciting research project as soon as possible. Within this project, we will explore efficient numerical methods for the simulation of the amplification of a CO₂ based laser and combine them suitable forward and inverse uncertainty quantification methods.

The tasks include

- Design and development of a simulation framework
- Validation based on experimental reference data
- Multilevel simulations of a CO₂ based laser amplification
- Uncertainty quantification for an energy efficient and stable amplification process

Requirements

- Master's degree or equivalent in engineering or related fields, preferably with a background in numerical methods for PDEs, uncertainty quantification or quantum mechanics
- Fluency in either German or English (written & oral)
- Ability to work in an international team

The IAG encourages publication of results in scientific journals and supports participation in international conferences. The position is initially limited to 1.5 years, but an extension beyond this period is possible.

The IAG is committed to increasing the number of female scientists. Severely disabled persons are given priority if equally qualified.

Please send your full application (cover letter, CV, transcripts) or questions exclusively to applications.nrg@iag.uni-stuttgart.de

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Ph.D. Position

TV-L E13, full time