

Job ID: RICAM047PD220

The Johann Radon Institute for Computational and Applied Mathematics ([RICAM](#)) of the Austrian Academy of Sciences ([OeAW](#)), Austria's leading non-university research and science institution, is offering a

## POST DOC POSITION (F\*M)

(full-time / 40h per week)

in **modeling and numerical simulation of ablative treatment of cardiac arrhythmias**. The position is offered initially for 1 year with the possibility of an extension up to 6 years and will be vacant starting from September 2020.

The full-time position is offered in the newly created **Group in Mathematical Methods in Medicine and Life Sciences** led by Prof. Dr. Luca Gerardo-Giorda at RICAM, located in Linz/Austria.

The selected candidate is expected to work on the modeling and simulation aspects of radiofrequency ablation (RFA), a clinical procedure that is based on catheterism and is commonly used in the treatment of cardiac arrhythmias. The hired person will combine image-based patient-specific geometry reconstruction with finite element based numerical simulation of a three-way coupled system that encompasses the blood flow movement in the cardiac chamber, the electrical field generated by the catheter tip, the heat distribution in the tissue, and the catheter movement under clinical settings. The selected candidate will be requested to take care of both the modeling and the coding aspect of the problem to run simulations on High Performance Computing (HPC) environment.

### Your profile:

- PhD in a quantitative discipline (with a preference in Applied Mathematics or Biomedical Engineering)
- Strong background in computational/applied mathematics
- Familiarity with C++ and Python programming
- Experience in interdisciplinary research
- Familiarity with the modeling of radiofrequency ablation (desirable)
- Strong proficiency in English

### Our offer:

- Excellent opportunities to work in a lively research environment and collaborate with international experts in the fields related to the project.
- An annual gross salary of € 54.453,00 (before taxes) according to the salary scheme of the Austrian Science Fund ([FWF](#)).

Applications including a scientific CV, a short research statement, and references for possible recommendation letters should be sent by e-mail to [lgg@ricam.oeaw.ac.at](mailto:lgg@ricam.oeaw.ac.at) (mentioning Job ID: RICAM047220).

*The Austrian Academy of Sciences (OeAW) pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity. The OeAW lays special emphasis on increasing the number of women in senior and in academic positions. Given equal qualifications, preference will be given to female applicants.*