



## **PhD Position in Super-Resolution Coronary Magnetic Resonance Angiography**

The Department of Diagnostic and Interventional Radiology together with the Institute for Advanced Study (IAS) at the Technical University of Munich (TUM) invites applications for one PhD position in methodological developments for motion corrected super-resolution 3D coronary magnetic resonance angiography and 3D late gadolinium enhancement MRI. The main aim is the development of super-resolution and reconstruction networks, novel pulse sequences and signal modeling methods for magnetic resonance imaging and the application of the developed methods for imaging of coronary heart disease.

The Radiology Department is equipped with four MRI scanners. The student will be part of the Cardiac Magnetic Resonance Research Group (<https://www.ias.tum.de/active-fellows/botnar-rene-m/>) and the Body Magnetic Resonance Research Group (<http://www.bmrrgroup.de/>) at the Institute of Advanced Study and the Radiology Department, respectively and will be closely working with radiology and cardiology clinicians within the TUM University Hospital (Klinikum rechts der Isar) and industry partners. During the PhD, the student also will spend a few months in the School of Biomedical Engineering and Imaging Sciences at King's College London. The funding for this position is intended for the entire duration of the PhD (3 years) and the position is available immediately. The employment is in accordance with TV-L (German Salary Grade 75% TV-L E13)

Applicants should hold a Masters (diploma) degree in Physics, Medical Physics, Biomedical Engineering, Electrical Engineering or in an area related to Medical Imaging. A solid background in signal processing, excellent programming skills in C/C++ and MATLAB/Python and previous experience with data acquisition and analysis are required. The applicant should have good communication skills and be willing to work as a part of an interdisciplinary team of engineers, physicists, and clinicians.

Applications should include (in a single pdf): a cover letter, a curriculum vita, if applicable a list of publications, Bachelor and Master (or diploma) transcripts (including a detailed list of classes and grades obtained) and two references (contact details only).

The position will remain open until filled.

All materials should be sent electronically to:

René M. Botnar, Ph.D.  
Hans Fischer Senior Fellow  
Institute for Advanced Study at TUM  
School of Biomedical Engineering and Imaging Sciences  
King's College London



Klinikum rechts der Isar

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<https://www.ias.tum.de/active-fellows/botnar-rene-m/>)



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