



The Max Planck Institute for Multidisciplinary Sciences is a leading international research institute of exceptional scientific breadth. With more than 40 research groups and some 1,000 employees from over 50 nations, it is the largest institute of the Max Planck Society.

The research group for *Magnetic Resonance Signal Enhancement* headed by Stefan Glöggler is inviting applications for a

### **PhD Student or Postdoctoral Fellow (f/m/d)**

- Physics in Magnetic Resonance -

Different spin states in nuclear magnetic resonance (NMR) offer the possibility to serve as contrast mechanisms in medical imaging to probe diseases. Recently, a quantum cognition hypothesis was introduced that proposes nuclear spin entanglement to play a role in biological information storage and transmission. The Signal Enhancement group focuses on the development of new methods to investigate this phenomenon. In a joint project together with the Medical Physics Group of the University Medical Center Freiburg we are aiming at developing new approaches to study quantum entanglement in vivo and in particular investigate nuclear spin singlet states in this context.

The candidate should have a strong background in physics or related disciplines and interest/experience in nuclear magnetic resonance and spin physics.

For a PhD student position, candidates should hold a Master's (or equivalent) degree in physics or related disciplines. The PhD position is limited to three years with a possible extension.

Postdoc candidates hold a PhD degree in physics or physical chemistry or related disciplines. The initial appointment for Postdocs is two years with possibilities for extension.

#### **What you will be doing**

- Investigating the spin physics of bio-molecules with respect to singlet states
- Investigating relaxation effects in different (biological) media
- Collaborating with our partners from the University Medical Center on preclinical implementations

#### **What we offer**

- Physics with biomedical and biochemical application
- High-impact emerging field of research
- State of the art equipment and infrastructure
- Interesting and varied work in an interdisciplinary environment
- A wide range of offers to help you balance work and family life: on-campus kindergarten places including vacation care, parent-child offices, etc.
- Further training opportunities and language courses
- Spacious cafeteria with a wide range of meals plus an espresso bar
- Health management: free fitness and yoga room, sports groups, course offerings for a "moving break"
- Initiatives for sustainability and a green environment with a new biotope

Payment and benefits are based on the German public service pay scale (TVöD Bund) guidelines.



The Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals. The Max Planck Society strives for gender and diversity equality. We welcome applications from all backgrounds.

Applications will be reviewed on a rolling basis until the positions are filled. Please submit your application including cover letter (explaining background and motivation), CV, transcripts, publication record and two contacts for letters of reference preferably via E-Mail as a single PDF file to

[ausschreibung54-22@mpinat.mpg.de](mailto:ausschreibung54-22@mpinat.mpg.de)

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Information pursuant to Article 13 DS-GVO on the collection and processing of personal data during the application process can be found on our website below the respective job advertisement.