



Conducting research for a changing society: This is what drives us at Forschungszentrum Jülich. As a member of the Helmholtz Association, we aim to tackle the grand societal challenges of our time and conduct research into the possibilities of a digitized society, a climate-friendly energy system, and a resource-efficient economy. Work together with around 7,500 employees in one of Europe's biggest research centres and help us to shape change!

DYNAVERSE is a new Cluster of Excellence lead by the Universities of Cologne and Bonn. Forschungszentrum Jülich is partner in Dynaverse, which is a world-class hub of researchers with expertise in Astrophysics, Computer Science and Mathematics. State-of-the-art research facilities to which this team has priority access combined with the expertise in high-performance computing, and data-analytics will generate new ground-breaking opportunities. The position advertised here is located at the Jülich Supercomputing Centre (JSC) which operates one of the most advanced supercomputing infrastructures for scientific applications in Europe – including JUPITER, the first exascale supercomputer in Europe. The "Sim & Data Lab Astronomy and Astrophysics" (SDLAA) is a research and support structure that provides an interface between the Supercomputer facilities and the Astrophysics communities, with a research focus on star and planet formation, in particular solar system formation, interstellar objects and young star cluster dynamics.

Join our team from 1st March 2026 as

## Postdoc for Interstellar Objects

### Your Job:

This project uses numerical simulations to determine the relative importance of the presence of interstellar objects (ISOs) in the interstellar medium. Specifically, the various formation process, the role of ISOs passing through molecular clouds, taking part in molecular cloud collapse and disc formation. Your tasks in detail:

- Perform scientific work on the research topic, in collaboration with the other SDLAA members
- Cooperate with partners in Dynaverse on relevant adjacent topics
- Present / publish results in collaboration meetings, workshops and conferences and the preparation of project reports
- Develop and apply software tools
- Document software and data according to the FAIR data principles
- Contribute to workshops and training activities

We look forward to receiving your application until

10.12.2025 via our

**Online-Recruitment-System!**

**Questions about the vacancy?**

Get in touch with us by using **our contact form.**

Please note that for technical reasons we cannot accept applications via email.

[www.fz-juelich.de](http://www.fz-juelich.de)

### **Your Profile:**

- Master with subsequent PhD degree in astronomy, physics, computer science or equivalent degree. PhD preferentially within the last 3 years.
- Solid background in star and planet formation or small bodies of the solar system
- Experience in hydrodynamics and/or N-body simulations in the star and planet formation context
- Experience in the field with HPC system usage and parallel/distributed computing
- Knowledge in GPU-based programming would be considered an asset
- Proven record in publication of results in high-impact journals
- Programming experience in at least one the following: C, C++, Fortran
- Proven background in software development
- Great ability to work in a multidisciplinary team of scientists with heterogeneous backgrounds solving scientifically challenging problems on large computers
- Self-motivated personality with very good command of written/spoken English and ideally a very good command of German

### **Our Offer:**

We work on the very latest issues that impact our society and are offering you the chance to actively help in shaping the change! We support you in your work with:

- Comprehensive training courses and individual opportunities for personal and professional further development
- Extensive company health management
- Ideal conditions for balancing work and private life, as well as a family-friendly corporate policy
- Flexible work (location) arrangements, e.g. remote work
- Flexible working hours in a full-time position with the option of slightly reduced working hours ( <https://go.fzj.de/near-full-time> )
- 30 days of annual leave and provision for days off between public holidays and weekends (e.g. between Christmas and New Year)
- A large research campus with green spaces, offering the best possible means for networking with colleagues and pursuing sports alongside work
- Targeted services for international employees, e.g. through our International Advisory Service

In addition to exciting tasks and a collaborative working atmosphere at Jülich, we have a lot more to offer: <https://go.fzj.de/benefits>

The position is for a fixed term of 2 years. Salary and social benefits will conform to the provisions of the Collective Agreement for the Public Service (TVöD-Bund), pay group 13, depending on the applicant's qualifications and the precise nature of the tasks assigned to them. All information about the Collective Agreement for the Public Service (TVöD-Bund) can be found on the BMI website: <https://go.fzj.de/bmi.tvloed> The monthly salaries in euro can be found here: <https://go.fzj.de/bmi.tvloed.entgelt>

We welcome applications from people with diverse backgrounds, e.g. in terms of age, gender, disability, sexual orientation / identity, and social, ethnic and religious origin. A diverse and inclusive working environment with equal opportunities in which everyone can realize their potential is important to us.

Further information on diversity and equal opportunities: <https://go.fzj.de/equality>