

OeAW - Discovering the future

As a central non-university institution for science and research, the **Austrian Academy of Sciences - OeAW** has the task of "**promoting science in every respect**". Founded in 1847 as a learned society, it now has over 760 members and around 1,800 employees dedicated to innovative basic research, interdisciplinary knowledge exchange and the dissemination of new insights. The OeAW initiates and maintains partnerships worldwide and represents Austria in international scientific organizations; it cooperates with numerous institutions in the scientific field in order to actively **shape the research landscape**.

Postdoc (f/m/x) on the application of Machine Learning to Particle Physics

Job ID: MBI133PD126

The Marietta Blau Institute for Particle Physics (MBI, formerly Institute of High Energy Physics (HEPHY) and Stefan Meyer Institue of Subatomic Physics (SMI) of the Austrian Academy of Sciences (ÖAW)), Austria's leading non-university research and science institution, performs a

rich research program in particle physics. It covers Dark Matter Phenomenology, involvements in the CMS and ALICE experiments at CERN and the Belle II experiment at KEK, R&D of particle detectors, exotic atoms like positronium and antihydrogen, and gravitational wave physics . A dedicated research group works on the application of Machine Learning techniques to different areas of high energy physics. In this context, MBI is offering a position as

Postdoc (f/m/x) on the application of Machine Learning to Particle Physics

full time / 40 hrs

for a period of three years

Your Tasks

- Develop and implement novel applications of cutting-edge machine learning techniques to various problems in high-energy physics
- Close collaboration on machine learning projects with other research groups at MBI
- Represent the group's research at national and international conferences
- Leadership role within the projects and supervision of students working on Bachelor's, Master's, or PhD thesis
- Pursue independent research

Your Profile

- Applicants should have a Ph.D. in physics, mathematics, computer science, or a closely related field by the starting date.
- Knowledge in high-energy physics (event generation, detector simulation, or data analysis) is essential. We will consider candidates with experimental and/or theoretical backgrounds.
- We seek candidates from a wide variety of machine learning backgrounds, such as generative models, foundation models, inverse problems, uncertainty quantification, anomaly detection, etc. to name a few.
- Experience in python code development and use of git is essential.
- You are an excellent communicator (in English), capable of working effectively both independently and as part of a research team.

- Soft skills (flexibility, creativity, independence,...)

Our Offer

- Interesting field of activity in a dynamic environment of the HEP-ML research group, as well as the broader ÖAW-wide ML-for-science research community (MLA²S)
- The position will be located in downtown Vienna
- The position is offered for a period of three years
- A position in an innovative and internationally active environment
- Numerous voluntary social benefits
- Flex time arrangement
- Opportunity to work independently and develop personally

The minimum annual gross salary for this position is € 71.079,54 (full-time based, effective from January 1, 2027), in accordance with the collective agreement of the Austrian Academy of Sciences (ÖAW).

Please send your application including a cover letter, a CV with a complete list of publications, a statement of research interests and experience (max 3 pages), and a short summary (max 2 pages) about up to 3 of your most important publications (what they are about, your contribution, and why they are important for this position) **no later than January 31, 2027**. Please arrange for two letters of recommendation to be sent directly by the recommender to mbi-office@oeaw.ac.at, also mentioning the Job ID.

Applications are considered until the position is filled. For questions, please get in touch with Dr. Claudius Krause (Claudius.Krause@oeaw.ac.at).

APPLY NOW

The Austrian Academy of Sciences (OeAW) pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity. Individuals from underrepresented groups are particularly encouraged to apply.

Contact

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