

machine learning for science and humanities postdoctoral program

SMASH Open Call 1 - 2023

SMASH is an innovative, intersectoral, career-development training program for outstanding postdoctoral researchers, co-funded by the Marie Skłodowska-Curie Actions COFUND program. SMASH is open to researchers around the world who are interested in developing cutting-edge machine learning applications for science and humanities.

During the five years of the SMASH project (2023-28) and over three planned calls, SMASH aims to hire 50 individuals for 2-year full-time postdoctoral contracts with highly attractive conditions. Fellows will be hosted by five leading Slovenian research institutions: the University of Nova Gorica, the University of Ljubljana, the Jožef Stefan Institute, the Institute of Information Science, and the Slovenian Environment Agency¹.

Applicants should propose ambitious research projects in one of SMASH's five key research areas, that are centered on the use of cutting-edge machine learning, or more broadly, artificial intelligence techniques, to address some of the world's most challenging questions in:

- 1. Machine Learning for Scientific Applications
- 2. Machine Learning for Particle Physics, Astrophysics, and Cosmology
- 3. Computing for Human and Animal Communication
- 4. Machine Learning in Climate Research
- 5. Personalized Medicine and Life Sciences

Applicants should choose the SMASH host institution and supervisor with whom they will coordinate the project proposal preparation.

Selection will be based on the applicant's track record and the quality of submitted project proposals. Interdisciplinary interactions are encouraged within the SMASH program, built on the principle that significant scientific and societal challenges can only be solved by collaboration between experts in different fields.

With "Call 1 - 2023", SMASH aims to hire 15 fellows. The selection process will end July 1st, 2023, with the first positions starting upon agreement.

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¹ Note that employment contracts will be signed with either the University of Nova Gorica (if your selected host institutions are the University of Nova Gorica, the Slovenian Environment Agency or the Institute of Information Science), the University of Ljubljana (Faculty of Computer and Information Science, Faculty of Mathematics and Physics) or with the Jožef Stefan Institute. However, the hiring and working conditions (contract duration, etc.) will be the same for all SMASH Fellows.



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Who can apply?

Holders of a PhD degree, of any nationality, complying with the MSCA-COFUND mobility rule can apply, namely: SMASH fellows must not have resided or carried out their main activity (work, studies, etc.) in Slovenia for more than 12 months in the three year period before the call deadline. Researchers who have successfully defended their doctoral thesis but have yet to be formally awarded their doctoral degree will also be considered postdoctoral researchers and are eligible to apply.

The SMASH program values an inclusive culture and believes diversity is the key to success, so SMASH warmly welcomes applicants from underrepresented groups. Note also that SMASH offers a dedicated allowance to support applicants with special needs.

Why apply?

MSCA COFUND SMASH is a highly competitive program offering attractive conditions to researchers, designed to boost their career development. This includes:

- A 2-year full-time employment contract as a Marie Sklodowska-Curie COFUND fellow and full academic freedom to pursue your research project at one of the SMASH host institutions coupled with a generous budget for research, training, and travel;
- Access to one of Europe's newest High-Performance Computers, the petascale <u>Vega facility</u>, and some of the world's most significant research collaborations and facilities, such as LHC-ATLAS and the Vera C. Rubin Observatory;
- A personalized training program that meets the needs of each fellow alongside active career mentoring by supervisors from SMASH academic partners: 23 leading institutions, including UC Berkeley, University of Washington, CERN, Queen Mary University of London, Weizmann Institute, and the University of Amsterdam.
 - Strong links with industry through cooperation with SMASH non-academic partners: five highly successful SMEs in Slovenia;
- International and intersectoral mobility through secondment periods with SMASH partners;
- High-level courses on SMASH research topics, complemented by extensive soft-training programs, including transferable skills development.
- Attractive living conditions: Slovenia ranks highly in quality of life indices due to its preserved natural environment, good infrastructure and public services, low crime, and high level of safety. Fellows will be compensated with a generous monthly gross salary of €5449/€4882 (w or w/o family), which includes all taxes and other statutory payments. For comparison, the average gross salary in Slovenia is about €2025 /month, and a single person's estimated monthly costs are around €800 without rent (see NUMBEO).

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How to apply?

Applicants are invited to apply using the online <u>application platform</u>. All information is available on the <u>SMASH web page</u> and detailed in a dedicated Guide for Applicants.

The call deadline is Saturday, April 15th, 2023, 23:59 CET.

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