

Postdoc positions in Scientific Machine Learning for Model

The Department of Mechanical and Production Engineering, Aarhus University, invites applications for two 1-year postdoc positions (with possibility of extension) offering applicants an exciting opportunity to join the ERC-funded project “ALPS - AI-based Learning for Physical Simulation”.

Expected start date and duration of employment

These are 1-year positions from 1 May 2026 or as soon possible.

Job description

- You will be contributing to developing and implementing novel algorithms at the intersection of computational physics and machine learning for the data-driven discovery of physical models.
- You will be working primarily with scientific machine learning methods, including symbolic regression and neural networks.
- You will apply the algorithms to the discovery of new models in different fields, including robotic control, mechanics of materials, fluid mechanics and biological systems, in collaboration with other researchers and companies.

Your profile

Applicants should hold a PhD in Computer Science, Computer Engineering, Artificial Intelligence, Physics, Mathematical Engineering, Mechanical Engineering or similar.

Relevant skills:

- Strong background in machine learning/data science.
- Deep knowledge of neural network architectures (as a plus: PINNs, neural operators, transformers/LLM) and NN training.
- Strong Python programming skills (as a plus: C++ or Julia) and knowledge of scientific computing libraries (numpy, scipy, JAX...) and machine learning libraries (e.g. scikit-learn, PyTorch).
- Flexibility to adapt to different application fields.
- Independence and time management.
- Professionalism, strong research ethics, and commitment to research quality.

Who we are

The *Computational Physics and Machine Learning Lab* led by prof. Lucantonio is a newly established group within the Mechanics and Materials Section of the Mechanical and Production Engineering Department. The group currently consists of 3 PhD students. Our focus is to develop new algorithms that allow to discover interpretable and accurate models of complex physical systems starting from data, ranging from robotic systems to traffic and turbulent flows. We are implementing these methods in high-performance open-source libraries to make them scalable and available to researchers and engineers for a wide range of applications.

What we offer

Aarhus University offers:

- an exciting interdisciplinary environment with many national, international and industrial collaborators
- the opportunity to co-supervise PhD and MSc students working in related topics
- a workplace characterised by professionalism, equality and a healthy work-life balance.

Place of work and area of employment

Application Deadline:
31 January 2026

Institute/Faculty:
Department of
Mechanical and
Production Engineering

Faculty:
Faculty of Technical
Sciences

Academic contact person:
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Vacant positions:
2

Number of months:
12

Hours per week:
37

Expected date of accession:
01/05/2026

Place of employment is Aarhus University, and place of work is Department of Mechanical and Production Engineering, Faculty of Technical Sciences, Katrinebjergvej 89, 8200 Aarhus N.

Contact information

For further information, please contact: Prof. Alessandro Lucantonio, +45 93517776, a.lucantonio@mpe.au.dk.

Deadline

Applications must be received no later than 31 January 2026.

Application procedure

Shortlisting is used. This means that after the deadline for applications – and with the assistance from the assessment committee chairman, and the appointment committee if necessary, – the head of department selects the candidates to be evaluated. All applicants will be notified whether or not their applications have been sent to an expert assessment committee for evaluation. The selected applicants will be informed about the composition of the committee, and each applicant is given the opportunity to comment on the part of the assessment that concerns him/her self. Once the recruitment process is completed a final letter of rejection is sent to the deselected applicants.

Letter of reference

If you want a referee to upload a letter of reference on your behalf, please state the referee's contact information when you submit your application. We strongly recommend that you make an agreement with the person in question before you enter the referee's contact information, and that you ensure that the referee has enough time to write the letter of reference before the application deadline. Unfortunately, it is not possible to ensure that letters of reference received after the application deadline will be taken into consideration.

If you wish to add a referee **after** you have submitted your application, you must send this person's details (name, job title, place of work, and email address) as well as the name of the position you have applied for to: HR.Nattech@au.dk

Formalities and salary range

Technical Sciences refers to the [Ministerial Order on the Appointment of Academic Staff at Danish Universities under the Danish Ministry of Science, Technology and Innovation](#).

The application must be in English and include a curriculum vitae, degree certificate, a complete list of publications, a statement of future research plans and information about research activities, teaching portfolio and verified information on previous teaching experience (if any). Guidelines for applicants can be found [here](#).

Appointment shall be in accordance with the collective labour agreement between the Danish Ministry of Taxation and the Danish Confederation of Professional Associations. Further information on qualification requirements and job content may be found in the [Memorandum on Job Structure for Academic Staff at Danish Universities](#).

Salary depends on seniority as agreed between the Danish Ministry of Taxation and the Confederation of Professional Associations.

Aarhus University's ambition is to be an attractive and inspiring workplace for all and to foster a culture in which each individual has opportunities to thrive, achieve and develop. We view equality and diversity as assets, and we welcome all applicants.

Research activities will be evaluated in relation to actual research time. Thus, we encourage applicants to specify periods of leave without research activities, in order to be able to subtract these periods from the span of the scientific career during the evaluation of scientific productivity.

Aarhus University offers a broad variety of services for international researchers and accompanying families, including relocation service and career counselling to expat partners. Read more [here](#). Please find more information about entering and working in Denmark [here](#).

Aarhus University also offers a Junior Researcher Development Programme targeted at career development for postdocs at AU. You can read more about it [here](#).

The application must be submitted via Aarhus University's recruitment system, which can be accessed under the job advertisement on Aarhus University's website.

Aarhus University

Aarhus University is an academically diverse and research-intensive university with a strong commitment to high-quality research and education and the development of society nationally and globally. The university offers an inspiring research and teaching environment to its 38,000 students (FTEs) and 8,300 employees, and has an annual revenues of EUR 935 million. Learn more at www.international.au.dk/