LABORATOIRE NAVIER

Postdoctoral position in mechanics and physics of materials, structures and geomaterials

Shape your research project at Navier

Build your research profile and prepare for a permanent research position

LOCATION
Champs-sur-Marne, France

DURATION
18 months

START DATE
March 2027 or later

APPLICATION DEADLINE
January 31, 2026

01 — THE OPPORTUNITY

The Navier Laboratory invites applications from outstanding early-career researchers interested in developing an original research project within its broad scientific scope. Rather than focusing on a predefined research topic, this call offers candidates the opportunity to propose their own research project, building on their expertise, scientific interests and research ambitions.

Projects may address fundamental or applied questions related to the mechanics and physics of materials, structures and geomaterials, and their applications to civil engineering, construction, transport, energy and the environment. Both experimental and theoretical approaches, numerical modelling and computational methods are welcome, as well as interdisciplinary research combining different methodologies and scientific fields.

Candidates are encouraged to explore new research directions and to develop original contributions that connect with the scientific expertise of the laboratory.

02 — A BROAD RESEARCH LANDSCAPE

The Navier Laboratory brings together four research teams with complementary expertise:

Geotechnics: Soil and rock mechanics, geotechnical engineering, geomaterials and coupled physical processes.

Architectured Materials and Structures: Mechanical behaviour and durability of materials and structures, innovative construction systems and sustainable design.

Multi-Scale: Multiscale and multiphysics modelling, experimental investigation and numerical simulation of heterogeneous materials and structures.

Rheophysics and Porous Media: Physics and mechanics of granular materials, complex fluids, suspensions and transport phenomena in porous media.

Research projects may be developed within any of these teams, depending on their scientific content and the candidate's profile.

03 — YOUR RESEARCH ENVIRONMENT

Joining Navier means becoming part of a multidisciplinary research community combining fundamental research, methodological developments and applications to major societal challenges.

The laboratory offers:

- A broad range of experimental and computational resources, including MRI and NMR, X-ray microtomography, optical tweezers, geotechnical and geomechanical testing facilities, mechanical testing, microstructural analysis, digital fabrication, computing resources, rheometry, experimental device design and fabrication, and nano-indentation.

- Strong expertise in theoretical modelling, computational mechanics and numerical simulation..

- Opportunities for interdisciplinary research and collaboration with national and international academic and industrial partners.

- An environment that fosters scientific independence and new research directions, while providing an opportunity to prepare an application for a permanent research position through the competitive recruitment processes of the CNRS or the French Ministry for Ecological Transition.

- Remuneration: approximately €3,000 gross per month, depending on postdoctoral experience.

- Dedicated start-up support: funding of up to €20,000 for equipment may be allocated, depending on the needs of the proposed research project.

04 — WHO SHOULD APPLY?

We are looking for motivated and creative researchers who have:

- A PhD in mechanics, physics, civil engineering, geosciences, materials science or a related discipline.

- A strong scientific background in a research area relevant to the activities of Navier.

- Demonstrated research experience through experimental, theoretical and/or numerical approaches.

- The ability to develop an original research project and work within an interdisciplinary research environment.

- A strong interest in collaborative research and scientific exchange.

Applications from candidates with complementary or interdisciplinary backgrounds are particularly welcome.

05 — HOW TO APPLY

Candidates should submit:

- A detailed curriculum vitae.

- A motivation letter outlining their research interests and motivation for joining Navier.

- A short research proposal (1–2 pages) describing the intended research project and its connection with the laboratory's scientific activities.

Applications should be sent to: Jean-Michel Pereira / jean-michel.pereira@enpc.fr

Contacts with team leaders can be established prior to your application:

Geotechnics: Siavash Ghabezloo

Architectured Materials and Structures: Cyril Douthe

Multi-Scale: Michel Bornert

Rheophysics and Porous Media: Florence Rouyer

NAVIER LABORATORY

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Champs-sur-Marne, France

Website: https://navier-lab.fr/