

## Job Offer: Postdoctoral Researcher in Scientific Computing - University of Liège



Position: Postdoctoral Researcher  
Field: Scientific Computing, Full Waveform Inversion (FWI)  
Research Group: Prof. C. Geuzaine's Group  
University: University of Liège  
Location: Liège, Belgium

Prof. C. Geuzaine's Research Group in Scientific Computing at the University of Liège is seeking a highly motivated and talented Postdoctoral Researcher to join the team. This position offers an exciting opportunity to contribute to cutting-edge research in the field of Full Waveform Inversion methods with applications in geotechnics. The successful candidate will work in Prof. C. Geuzaine's interdisciplinary research group, collaborating with researchers and experts in various scientific domains.

### Responsibilities:

- Conduct research in the area of frequency-domain Full Waveform Inversion methods (fast high-order finite element solvers, Krylov subspace methods, optimization algorithms), specifically focusing on their applications to high-resolution imaging of elastic properties of the ground for geotechnical applications in near- or offshore environments.
- Develop innovative algorithms and computational models to improve the accuracy and efficiency of Full Waveform Inversion techniques.
- Implement numerical simulations and perform data analysis to validate and evaluate the performance of the developed methods.
- Collaborate with other researchers and experts within Prof. C. Geuzaine's research group and across disciplines, in particular with Prof. F. Nguyen's group in Applied Geophysics.
- Publish research findings in high-impact journals and present work at national and international conferences.
- Contribute to the supervision and mentorship of graduate students and junior researchers.

### Qualifications:

- A Ph.D. degree in a relevant field, such as Computational Science, Applied Mathematics, Geophysics, or a related discipline.
- Strong background in scientific computing, numerical methods, and optimization techniques.
- Experience with Full Waveform Inversion methods and their application in geotechnics is highly desirable.
- Proficiency in programming languages such as Python and C++.
- Excellent analytical and problem-solving skills.
- Effective communication skills and ability to collaborate with a diverse team of researchers.

- Track record of publishing research results in reputable scientific journals is an advantage.

The University of Liège, under the supervision of Prof. C. Geuzaine, provides a vibrant and stimulating research environment with state-of-the-art facilities and ample opportunities for professional growth and development. The successful candidate will have the opportunity to work closely with Prof. C. Geuzaine and other experienced researchers, gaining valuable insights and guidance.

To apply, please submit the following documents:

1. Curriculum vitae (CV) with a list of publications.
2. Cover letter highlighting your research experience, interests, and motivation for this position.
3. Contact information for two professional references.

Applications should be sent electronically to [cgeuzaine@uliege.be](mailto:cgeuzaine@uliege.be). Please mention "Postdoctoral Researcher Application - Full Waveform Inversion" in the subject line. Review of applications will begin immediately and continue until the position is filled. Shortlisted candidates will be contacted for further information and interviews.

The University of Liège is an equal opportunity employer committed to fostering diversity within its community. We encourage applications from qualified individuals of all backgrounds.

For more information about Prof. C. Geuzaine's research group and the University of Liège, please visit <https://people.montefiore.uliege.be/geuzaine>.

We look forward to receiving your application and having you join Prof. C. Geuzaine's dynamic research group at the University of Liège!