

Centrum Wiskunde & Informatica (CWI) invites outstanding candidates to apply for a

## **Tenure track position** in Scientific Computing of Technical Plasmas and/or Fluids

within the [Multiscale Dynamics](#) group. The group develops methods of scientific computing, nonlinear dynamics, model reduction and machine learning with a particular focus on the multiscale plasma dynamics in lightning and space weather, and in high voltage and plasma technology. Within national and European projects, we collaborate with colleagues in applied plasma physics, electrical and mechanical engineering, atmospheric electricity, and cosmic particle and space science, and with non-academic partners such as ABB, DNV-GL, ESA and NASA.

CWI has a strong track record in numerical mathematics and scientific computing, nowadays mostly within the groups *Multiscale Dynamics*, *Scientific Computing* and *Computational Imaging*, and we wish to strengthen this profile further. CWI's location in [Amsterdam Science Park](#) facilitates close collaboration with neighbouring institutes including *SurfSara* and the *Netherlands' eScience Center*.

### **Job description**

We are looking for a new colleague with a strong interest in developing general methods of scientific computing, ranging from numerical algorithms to practical computing also on modern high performance computing platforms, and with the interest and ability to apply these methods to the modelling projects of the Multiscale Dynamics group through practical code development.

The Multiscale Dynamics group has developed a suite of codes to compute multiscale plasma dynamics in two and three spatial dimensions with electrostatic and other nonlocal interactions for a wide range of applications. The codes are based on particle (MCC-PIC) and/or fluid models, with parallelization and adaptive mesh refinement. Extending these open source codes for new application areas and making them further accessible for international users would be an excellent complement to the group's expertise. To facilitate the collaboration with experimental colleagues and partners in industry, some understanding of atmospheric pressure plasmas would be helpful.

### **Requirements**

The successful candidate has an excellent track record in innovative research and code development, and he/she has publications in leading international journals. The candidate has at least two years of postdoctoral experience, and the ambition and potential to acquire personal research grants and/or external funding for applied or fundamental research (e.g. from NWO, EU, or industry). The candidate has excellent communication skills and the ability and intention to set up his/her own research agenda and group.

CWI expects its tenured researchers to speak Dutch at the end of the tenure track.

### **Terms and conditions**

The position is for three or five years depending on knowledge and experience. At the end of a successful tenure track term a permanent scientific staff position will be offered. Criteria for evaluation comprise a track record of publications that is well above average,

and the ability to acquire funding and to build up an (inter)national network and reputation.

The terms of employment are in accordance with the Dutch Collective Labour Agreement for Research Centres ("CAO-onderzoeksinstituten"). Depending on relevant work experience, the gross monthly starting salary for an employee on a full time basis ranges from € 3,525 to € 5,512. Employees are also entitled to a holiday allowance of 8% of the gross annual salary and a year-end bonus of 8,33%.

CWI offers attractive working conditions, including flexible scheduling and help with housing for expat employees.

Please visit our website for more information about our terms of employment:  
[www.cwi.nl/terms-of-employment](http://www.cwi.nl/terms-of-employment)

**Application** Applicants should send:

- a motivation letter;
- a curriculum vitae with a list of publications;
- a copy of their three most prominent publications;
- the names of at least three prominent scientists who can provide letters of recommendation;
- a research statement and a research plan for the coming years, including plans on how to acquire additional funding.

We especially invite qualified women to apply.

Please send the application until November 19, 2017 to:  
Centrum Wiskunde & Informatica  
Personnel Department, Ms. A. Schilder, MSc  
P.O. Box 94079  
1090 GB Amsterdam  
The Netherlands

or email the application to: [apply@cwi.nl](mailto:apply@cwi.nl).

Additional information can be obtained from the leader of the Multiscale Dynamics group:  
Prof.dr. Ute Ebert, tel. +31 (0) 20 592 4206, e-mail: [ute.ebert@cwi.nl](mailto:ute.ebert@cwi.nl)

For more information about CWI, please visit [www.cwi.nl](http://www.cwi.nl) or watch our video "[A Fundamental Difference](#)" about working at CWI.

**About Centrum Wiskunde & Informatica** Centrum Wiskunde & Informatica (CWI) is the Dutch national research institute for mathematics and computer science and linked to the Netherlands Organisation for Scientific Research (NWO). The mission of CWI is to conduct pioneering research in mathematics and computer science, generating new knowledge in these fields and conveying it to trade, industry, and society at large.

CWI is an internationally oriented institute, with 160 scientists from approximately 27 countries. The facilities are first-rate and include excellent IT support, career planning, training, and courses.

CWI is located at Science Park Amsterdam that is presently developing into a major location of research in the natural sciences in The Netherlands, housing the sciences of the University of Amsterdam and of the Vrije Universiteit as well as several other national research institutes next to CWI.