

Centrum Wiskunde & Informatica (CWI) has a vacancy in the Stochastics research group for a talented **PhD student**,

on the subject of "Models and methods for robust adaptable ship design for uncertain transition paths".

Job description

Recently, the International Maritime Organization (IMO) has agreed to reduce CO2 emissions of shipping by 40% in 2030 and even further by 2050. This raises tremendous challenges related to the energy transition and the transition towards automated ships. Ships currently designed will still be around after the transitions, requiring multiple modifications in the ship and system layout to stay relevant.

The goal of this project is to develop innovative quantitative models and solution methods that advance the ship design process by reducing the impact and costs of uncertain future modifications in the control of systems, the ship topology, and the routing of cables and pipes. The developed methods will empower the maritime sector to seamlessly transition from ships nowadays to autonomous ships with zero emissions.

Position

We offer a full-time 4-years PhD position. The student will become a member of the Stochastics group at the Center for Mathematics and Computer Science (CWI), and get his/her PhD degree from the Vrije Universiteit Amsterdam. The student will be part of a research team and will be working closely together with researchers from the Vrije Universiteit Amsterdam and with other PhD students at the TU Delft.

Requirements

Candidates are required to have a Master's degree in Operations Research, Applied Mathematics or a related discipline, and have knowledge of stochastic models and optimization techniques. The candidate should also have strong implementation skills. Preferable qualifications for candidates include proven research talent, an excellent command of English, and good academic writing and presentation skills.

Terms and conditions for PhD students

The terms of employment are in accordance with the Dutch Collective Labour Agreement for Research Centres ("CAO-onderzoeksinstellingen"). The initial labour agreement will be for a period of 18 months. After a positive evaluation, the agreement will be extended by 30 months. The gross monthly salary, for a PhD student on a full time basis, is €2,407 during the first year and increases to €3,083 over the four year period. 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:

<https://www.cwi.nl/jobs/terms-of-employment>

Application

Send a motivation letter, a CV, including the email addresses of two references, a grade transcript and a copy of your Master's thesis and preferably a list of publications. to apply@cwi.nl. There is no deadline for application, but applications will be processed in order of arrival. The position remain open until it is filled.

For residents outside the EER-area, a Toefl English language test might be required. The selected candidates will be subjected to a screening process.

For more information about the vacancy, please contact Prof. Rob van der Mei, email mei@cwi.nl. For more information about CWI, please visit www.cwi.nl or watch our video about working at CWI.

CWI encourages a diverse workforce: we endeavour to develop talent and creativity by bringing people from different backgrounds and cultures together. We recruit and select based on capabilities and talent. We strongly encourage everyone with the appropriate qualifications to apply for the vacancy, regardless of age, gender, origin, sexual orientation or physical abilities.

About Centrum Wiskunde & Informatica

Centrum Wiskunde & Informatica (CWI) is the Dutch national research institute for mathematics and computer science and is part of the Institutes Organisation of the Dutch Research Council (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, the home of AMS-IX, that is presently developing into a major location of research in the physical sciences in The Netherlands, housing the sciences of the University of Amsterdam as well as several other national research institutes next to CWI.

Research group

To find more information about the group, please visit the group page and watch their video (see <https://www.cwi.nl/research/groups/stochastics>).