Postdoc position in Algorithmic Game Theory at CWI Amsterdam

Centrum Wiskunde & Informatica (CWI) has a vacancy in the Networks and Optimization research group for a talented

Postdoc, on the subject of "Network Games with Combinatorial Structures".

#### Job description

The goal of this project is to study the computation and inefficiency of equilibria in strategic games on networks. One key aspect is to identify combinatorial structures that allow for the efficient computation of equilibria with provable inefficiency guarantees. Another key aspect is to investigate the potential of exploiting combinatorial structures to develop coordination mechanisms that reduce the inefficiency caused by selfish behavior.

The candidate will perform research in the area of algorithmic game theory, combining techniques from algorithms, optimization and game theory. He or she will become a member of the group Networks and Optimization, an active group of researchers pursuing fundamental research in algorithms, optimization and algorithmic game theory at CWI.

### Requirements

Candidates are required to have completed a PhD in the area of theoretical computer science, discrete mathematics or a related discipline, and a strong background in complexity theory, algorithms, discrete optimization and algorithmic game theory. Needed qualifications for candidates include proven research talent and good academic writing and presentation skills. Candidates are expected to have an excellent command of English.

### Terms and conditions

The terms of employment are in accordance with the Dutch Collective Labour Agreement for Research Centres ("CAO-onderzoeksinstellingen"). The gross monthly salary for an employee on a full time basis, depending on relevant work experience, ranges from  $\in$  3,355 to  $\in$  4,772. The appointment will be for a period of one year; an extension by another year might be possible (funds to be granted). 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.

Please visit our website for more information about our terms of employment: https://www.cwi.nl/terms-of-employment

# Application

The position is available immediately. The starting date is flexible but no later than September 1, 2017. The application procedure remains open until the position is filled. Applications will be reviewed on a regular basis. The first application round ends on March 17, 2017.

All applications should include a detailed resume, a motivation letter and contact details of at least three references who can provide recommendation letters upon request.

Applications should be sent to apply@cwi.nl.

For residents outside the EER-area, a Toefl English language test might be required.

For more information about the vacancy, please contact Prof. Dr. Guido Schäfer, email <u>g.schaefer@cwi.nl</u>. For more information about CWI, please visit <u>https://www.cwi.nl</u> 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.

### Research group

For more information about the Networks and Optimization research group at CWI, please visit our website at <a href="https://www.cwi.nl/research-groups/Networks-and-Optimization">https://www.cwi.nl/research-groups/Networks-and-Optimization</a>.