

# Two PhD positions in Stochastic Networks at Eindhoven University of Technology

The Section Stochastics of the Department of Mathematics and Computer Science at Eindhoven University of Technology invites applications for two PhD positions in the area of Applied Probability and Stochastic Networks.

The PhD projects will involve research on large-scale stochastic networks, focusing on stochastic models and robust algorithms for evaluating and optimizing the network behavior and performance. Specific research topics range from asymptotic scaling limits for complex high-dimensional systems to data-driven optimization approaches and online algorithms for dynamic control and resource allocation. Specific application areas include energy and communication networks, in particular cloud computing systems, data centers and Internet of Things.

The PhD projects are carried out in the framework of the NWO Gravity project NETWORKS ([www.thenetworkcenter.nl/](http://www.thenetworkcenter.nl/)), and fall at the intersection of applied probability, performance evaluation, algorithm design and stochastic operations research. The research activities are expected to open up fruitful connections with other branches of mathematics, spark methodological advances in queueing theory, and yield valuable insights for the dynamic control and data-driven optimization of complex networks. The overall aim is to make fundamental contributions in the area of large-scale stochastic networks.

## *Job requirements*

Successful candidates are expected to be fluent in English, both oral and in writing, and have an excellent background in mathematics, as evidenced by an MSc degree in preferably mathematics, or possibly econometrics, operations research or electrical engineering. Strong knowledge of probability theory and stochastic processes is highly desirable.

## *Terms of employment*

PhD candidates are appointed as temporary university employees for a four-year period (based on an initial one-year contract, with a three-year extension after a positive evaluation as to whether the research is expected to result in a PhD degree after four years).

The terms of employment are governed by the Collective Labor Agreement of Universities in The Netherlands, with a monthly salary starting at 2173 Euro in the first year and increasing to 2778 Euro in the fourth year, and an additional 8% holiday allowance and 8% end-of-year bonus.

## *Information*

For further information, please contact:

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## *Application*

In order to apply, please send a detailed curriculum vitae, along with a brief cover letter motivating your interest, to S.C. Borst, [s.c.borst@tue.nl](mailto:s.c.borst@tue.nl)