



## Job Description

This form summarises the purpose of the job and lists its key tasks. It is not a definitive list of all the tasks to be undertaken as those can be varied from time to time at the discretion of the School, in consultation with the post holder.

**Job title: Research Officer in Algorithms and Optimisation**

**Department: Mathematics**

**Accountable to: Head of Department**

### Job Summary

The successful applicant will be a Research Officer contributing to two projects: the ERC Starting Grant “Scaling Methods for Discrete and Continuous Optimization”, working with Principal Investigator Prof. László Végh, and the NWO Vidi Grant Project “Usable Algorithms for Network Optimization”, working with Principal Investigator Dr Neil Olver. The research focus will be on the ERC project during the first part and on the NWO project during the second part of the duration of the contract.

The successful applicant will contribute to the research objectives of the two projects, by conducting substantive individual research and developing new results in the theory of algorithms and optimisation. The main objectives of the ERC project are developing new scaling methods in discrete and continuous optimisation and extending the limits of strongly polynomial computability. The main objectives of the NWO project are to improve our theoretical and algorithmic understanding of various fundamental problems in discrete optimisation, with a focus on problems arising in the design and utilisation of networks.

### Duties and Responsibilities

#### Range of Research Activities and Responsibilities

- Conducting substantive research into complex problems, ideas, concepts or theories and applying appropriate methodologies.
- Developing and carrying forward a coherent research strategy in their discipline which has national and international impact.
- Manage their own research and administrative activities, with guidance if required.
- Writing up research for publication in a variety of modes including peer reviewed journals.
- Presenting research papers at conferences.
- Contributing to the organisation of conferences, seminars and workshops.

#### Activities relating to administration and management and/or School service may include:

- Playing a constructive role in the life of the research group and Department.

All of the above subject to the contractual obligations imposed by the external funding agency and with the agreement of the grant-holders, Principal Investigators and/or Head of Department.



### **Flexibility**

To deliver services effectively, a degree of flexibility may be required in the duties performed in order to meet the exigencies of service. Job roles may also naturally develop over time and ongoing substantial changes to a role will be discussed between line managers and their staff, with job descriptions updated as and when appropriate.

### **Equity, Diversity and Inclusion (EDI)**

LSE is committed to building a diverse, equitable and truly inclusive university. All posts (and post holders) will seek to ensure diversity and inclusion, while opposing all forms of unlawful and unfair discrimination on the grounds of age, disability, gender identity, marriage and civil partnership, pregnancy and maternity, race, nationality, ethnic or national origin, religion or belief, sex and sexual orientation, or social and economic background.

### **Ethics Code**

Posts (and post holders) are assumed to have a responsibility to act in accordance with the School's Ethics Code and to promote the principles and values that the Code enshrines. The Ethics Code clearly states that the whole LSE community, including all staff, students, and governors of LSE, are expected to act in accordance with the principles which are set out in the Code. As such you are required to read and familiarise yourself with it. The School's Effective Behaviours Framework is designed to support this Code. It sets out examples for the six behaviours that all staff are expected to demonstrate, these can be found on the following link: [click here](#).

### **Environmental Sustainability**

The post holder is required to minimise environmental impact in the performance of the role, and actively contribute to the delivery of the LSE Environmental Policy.