UNIVERSITY OF WARWICK

Job Description

Job title	Research Fellow
Department	Mathematics
Grade	6

Job purpose (a brief summary of the role)	Work with Prof. Tim Austin and collaborators on the subject of the ERC Project* "HDPER – High-Dimensional Probability in Ergodic Theory and Representation Theory". This will mean conducting research at the intersection of Ergodic Theory, Random Graphs, Operator Algebras, and Random Matrices, and will depend on prior expertise in at least one of these areas.
Duties and responsibilities	**Research** • To conduct high quality research relevant to the project, as described above. • To work collaboratively with other researchers and senior investigators on the project. • To prepare manuscripts for submission to relevant journals. • To attend and present research findings and papers at academic and professional conferences, and to contribute to the external visibility of the university. • Starting with prior knowledge in at least one of the mathematical fields represented in this project, to learn more about the other fields and how they interact, and learn to collaborate between different fields and research communities as a result. **Administration and Other Activities** • To participate in relevant professional activities, such as attending departmental research seminars. • To participate in the organisation of research workshops and other events. • To engage in personal and career development. • To assist in the supervision of PhD students within the research group.

Person Specification

The Person Specification focuses on the essential and desirable knowledge, skills, experience and qualifications required to undertake the role effectively. This is measured by (a) Application Form, (b) Test/Exercise, (c) Interview, (d) Presentation.

Essential Criterion No.	Essential Criterion Description	Measured by
E1	PhD or equivalent in one of the areas of the project (roughly, abstract Ergodic Theory, Operator Algebras, Random Graphs, or Random Matrices).	A & C
E2	Ability to initiate, develop and deliver high quality research and to publish in peer reviewed journals.	A & C
E3	Evidence of quality research output from experienced candidates or strong research potential from less experienced candidates.	A & C
E4	Good communication (oral and written) skills.	A & C
E5	Ability to work as an independent researcher and collaboratively within a team.	A & C

Desirable Criterion No.	Desirable Criterion Description	*Measured by*
D1	Experience with interaction between *more than one* of the areas of the project.	A & C
D2	Past evidence of independently generating meaningful questions or research directions in the areas of the project.	A & C