

PRESS RELEASE: ANNOUNCING A NEW MATHEMATICS NETWORK

The National Science Foundation has announced the funding of a new \$5M Research Network in Mathematical Sciences with central hubs at the University of Illinois at Urbana-Champaign, the University of Maryland and Stanford University. This Research Network is based around the subject of “Geometric structures and Representation varieties” (GEAR).

By linking researchers from 46 nodes in the US, Canada, and Europe, the GEAR Network will facilitate research interactions, crossing traditional mathematical boundaries, and opening new possibilities for graduate student training.

The Network will fund short-term visits, exchanges, network retreats, border-crossing workshops, as well as focused and regional workshops. Approximately half of the resources are dedicated to the Young Researcher Program of the Network, which is aimed at training graduate students and postdocs. Network Fellowships and Summer Research Experiences will enable young scientists to intern with a research group or individual members at a different institution. Network Junior Retreats will bring together groups of graduate students and postdocs. The resources will benefit mathematicians from under-represented groups in the Mathematical Sciences, as well as active researchers at institutions which lie outside the traditional established centers.

The research focus of the GEAR Network is the interplay between topology of spaces of low dimension (2, 3, 4), and the various ways of endowing them with geometric structures. This subject relates to many different areas of mathematics and mathematical physics.

The Network Director and Director of the hub at the University of Illinois Champaign-Urbana is mathematics professor Steven Bradlow (UIUC). The Stanford University hub will be directed by mathematics professor Steven Kerckhoff (Stanford University). The University of Maryland hub will be directed by mathematics professors William Goldman (University of Maryland), Richard Wentworth (University of Maryland), and Anna Wienhard (Princeton University).

The Network will work closely with the Center for the Quantum Geometry of Moduli Spaces (QGM) in Aarhus, Denmark, and the European Science Foundation network for Interactions between Topology Geometry and Physics (ITGP), both of which are headed by Professor Jørgen Ellegaard Andersen (Aarhus University).