

IWR Colloquium Summer Semester 2019

July 3, 2019 / 16:15

**Mathematikon, Conference Room / 5th Floor
Im Neuenheimer Feld 205, 69120 Heidelberg**

Speaker:

Prof. Mark A. Girolami
Royal Academy of Engineering Research Chair in Data Centric Engineering
University of Cambridge, UK

Title:

"The Statistical Finite Element Method "

Abstract:

The finite element method (FEM) is one of the great triumphs of applied mathematics, numerical analysis and software development. Recent developments in sensor and signalling technologies enable the phenomenological study of systems. The connection between sensor data and FEM is restricted to solving inverse problems placing unwarranted faith in the fidelity of the mathematical description of the system. If one concedes mis-specification between generative reality and the FEM then a framework to systematically characterise this uncertainty is required. This talk will present a statistical construction of the FEM which systematically blends mathematical description with observations.

Website Prof. Girolami:

www.turing.ac.uk/people/programme-directors/mark-girolami

Website IWR-Colloquium:

www.iwr.uni-heidelberg.de/iwr-colloquium