

5th IMA Conference on Mathematics in Defence

In conjunction with The Sandhurst Trust

Thursday 23 November 2017, The Royal Military Academy Sandhurst



Introduction

Science and technology play an increasingly important role in supporting the defence industry. Mathematics is fundamental to these two disciplines, providing a framework for understanding and solving the varied and complex problems faced, and to model systems and scenarios. These models are then used to estimate system performance, find weaknesses in real systems, and suggest improvements.

This conference brings together a wide variety of mathematical methods with defence and security applications. The programme will include keynote speakers, presentations and poster sessions, as well as refreshment breaks for informal discussions. It is aimed towards mathematicians, scientists and engineers from both industry and academia, in addition to government and military personnel who have an interest in how mathematics can be applied to defence problems.

This will be the fifth Mathematics in Defence conference; the first four conferences, held in 2009, 2011, 2013 and 2015, each attracted over 100 delegates from a wide range of organisations including QinetiQ, DSTL, AWE, BAE Systems, Thales, Rolls Royce, the IMA, the MoD, academic establishments and international parties.

Conference Topics

Contributed papers or posters are invited on all aspects of mathematics in defence. Topics covered include (but are not limited to) the following:

- Data Science and Machine Learning
- Modelling and Estimation
- Operational Analysis
- Security
- Signal Processing
- Statistical Methods
- Cyber-physical Systems

Details of invited speakers to follow.

Instructions for authors

Papers or posters will be accepted on the basis of a 300-500 word abstract which should be submitted by 12 May 2017 via <https://my.ima.org.uk/>. Abstracts are expected to conform to the following template in Times New Roman, size 10 font:

Title:

Contributing author(s) Surname, Initials

Affiliation(s) Department, organisation.

Abstract: 300-500 words only.

Authors will be advised of acceptance by 16 June 2017. Successful authors will be invited to submit a paper or poster for inclusion in the conference proceedings by 8 September 2017. Authors accepted for oral presentations will be requested to submit a paper; authors accepted for poster presentations may optionally also submit papers. This is an open conference and all papers and presentations will be unclassified. The proceedings will be made available to delegates on USB and for download from the conference webpage. Prizes will be awarded at the conference for the best paper, the best poster and the best early career researcher's presentation.

Organising Committee

Neil Gaspar (AWE) – Chair; Helen Balinsky (HP Labs Bristol); Rhiannon Ellis (AWE); Sam Ellis (MOD); Jeremy Gribble (AWE); Richard Hoyes (DSTL); Maria Kopec (AWE); Luke Marsh (DSTL); Andy Pearson (Rolls Royce); Richard Pinch (Cheltenham); Adam Zagorecki (Cranfield University)

Further Information

For further information or to register your interest, contact Lizzi Lake, Conference Officer: email conferences@ima.org.uk, tel +44 (0) 1702 354 020, Institute of Mathematics and its Applications, Catherine Richards House, 16 Nelson Street, Southend-on-Sea, Essex, SS1 1EF, UK.