

35th International Symposium on Military Operational Research (35 ISMOR)

17-20 July 2018

Royal Holloway, University of London, Egham, Surrey, TW10 0EX, UK

*** Abstract deadline - 25 May ***

ISMOR is an annual international symposium sponsored by the UK Ministry of Defence and offering a unique opportunity to spend four days exploring the application of analysis to practical issues in defence and security with a wide range of colleagues from across the world.

- Network with defence professionals from across the globe
- Discover the latest defence analysis techniques through
 - Presentations about analysis applied to real-world defence and security problems
 - Multiple masterclasses and workshops from leading experts
 - A poster session in which to discuss ideas
- Present your work in front of a respected audience

As well as inspiring experienced practitioners with new approaches and providing informal testing of ideas, ISMOR offers excellent development for early career analysts.

Themes for 2018 are:

‘Making every penny count’ – covering issues of affordability and value-for-money.

Papers will include cost estimating and forecasting and how to make defence more affordable, as well as cost-benefit analysis and resource allocation.

‘Modelling for military operations’ – what models are needed and how do we develop them? Within this theme we have papers from a range of nationalities covering topics such as the benefits of analytical collaboration with NATO, simulation to support both weapon procurement and force structures and an innovative approach to software development that has improved delivery against time, cost and quality.

‘Data Analytics’ – covering areas such as data science, ‘Big Data’ and advanced analytics. Papers will consider what defence analytics is, and will provide examples of analytics in a defence context.

‘Wargaming’ – how can we use wargaming to support decision making? These papers will include summaries and insights from some high profile recent wargaming events and thoughts on wargaming best practice. There will be a summary of wargames related to the British Vice Chief of the Defence Staff Wargaming Initiative and a high profile wargaming exercise for the Royal Air Force. Thoughts on best practice include wargame preparation

and guidance from very experienced professionals and methods for handling analytics and outputs.

The programme will also include a range of interactive workshops, with the following now confirmed.

The Choson Conundrum: War Beginning and War End: Analytical Challenges for the Korean War Planner and Operator - Charles F Hawkins

An overview of a hypothetical scenario set in the Korean Peninsula will be followed by small group table top vignette exercises, emphasising analytical considerations prior to war initiation and at the end of the warfighting. The goal will be to achieve insights that can inform pre-war and post-war planning and execution.

Cost forecasting explained; defensible decisions made – Dale Shermon - QinetiQ

This workshop is aimed at providing an insight into cost forecasting, not necessarily to make practitioners, but to enable you to recognise when the cost figures you are presented are justified and credible. It will review the cost forecasting methodologies with their advantages and disadvantages. Finally, it will provide hints and tips regarding questions to ask to improve your decision making in the area of cost forecasting.

Redefining Friend and Foe in a World of Abundance - Chris Eastman, Simona Dean, Eugene Visco – Lockheed Martin

This workshop will seek to identify what the sources of conflict could be in a future, contrasting world. Such a world will be defined by the group by considering advances in technology. Where could competition arise from? What will security/defence missions look like? The generated insights could offer considerations for defence planners and technologists on how to prepare for such an alternative future.

Gaining the Battle-Winning Edge with Data Science – Lou Martingale, Julie Manuel – Dstl

Dstl is working with the British Army to unlock the value of its data holdings. Sophisticated sensors on soldiers, vehicles and weapons help monitor and improve performance during Field Army training exercises. But how can this data be exploited more widely? What other questions might it help address? This workshop will explore methods through which we can explore and exploit big data for greater impact, and discuss how Dstl and MOD approached this challenge.

Other workshops in preparation include:

- “The Beer Game” – Participate in the established business simulation game which explores the dynamics of a supply chain.
- “Analyst’s Exchange” – An opportunity for early career analysts to ask questions, and enable more senior analysts to share the benefit of their experience
- Workshops and discussion groups related to Wargaming and Modelling & Simulation

There will also be a conference keynote speech from a senior member of the UK Ministry of Defence, a debate on the future of operational research in defence, and a distinguished speaker at the banquet to entertain and enlighten us.

There are a few spaces left for papers, and we would welcome more posters, so please submit your abstract **NOW** for a paper or poster on any aspect of the application of analysis to defence and security, particularly those relating to the symposium themes.

For examples of previous papers and presentations, see the archive www.ismor.com.

To book your place and **submit your abstract**, please use the online registration facility at www.ismor.com. A range of pricing options including daily rates are available and have been held at 2015 levels with discounts available for early career analysts.

Key Dates

25 May 2018 Deadline for abstracts

2 July 2018 Deadline for receipt of presentations and papers

For help with your registration, contact the Royal Holloway conference office at cms@royalholloway.ac.uk.

Please forward this announcement to any colleagues who might be interested in attending.

I look forward to welcoming you to 35 ISMOR.

Judith Rawle
Symposium Chair
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