



SCIENCE AND TECHNOLOGY ORGANIZATION
NATO MODELLING AND SIMULATION GROUP



MSG-217 RSY

1 May 2024

CALL FOR PAPERS

**For the 2024 NATO MODELLING & SIMULATION GROUP (NMSG)
SYMPOSIUM**

Theme:

Modelling and Simulation as enabler for Digital Transformation in NATO and Nations

to be held in
La Spezia, Italy

24-25 October 2024



This activity is open to NATO nations, NATO bodies, Science and Technology Organization Enhanced Opportunity Partners (STO EOP), Partnership for Peace countries (PfP), Partners across the globe (GP) and Invited Contact Countries (Brazil, India and Singapore)
All sessions will be **PUBLIC RELEASE**

EXTENDED DEADLINE FOR RECEIPT OF ABSTRACTS: 10 MAY 2024

NATO SCIENCE & TECHNOLOGY ORGANIZATION

The NATO Science & Technology Organization (STO) is a NATO subsidiary body to the North Atlantic Council (NAC) established with a view to meeting to the best advantage the collective needs of NATO, NATO Nations and partner Nations in the fields of Science & Technology (S&T).

The mission of the NATO STO is to help position the Nations' and NATO's S&T investments as a strategic enabler of the knowledge and technology advantage for the defence and security posture of NATO Nations and partner Nations, by:

- a) Conducting and promoting S&T activities that augment and leverage the capabilities and programmes of the Alliance, of the NATO Nations and the partner Nations, in support of NATO's objectives;
- b) Contributing to NATO's ability to enable and influence security and defence-related capability development and threat mitigation in NATO Nations and partner Nations, in accordance with NATO policies;
- c) Supporting decision-making in the NATO Nations and NATO.

The STO performs its mission with the support of an extensive network of national and international experts. It also ensures effective coordination with other NATO bodies involved in S&T activities.

The total spectrum of S&T activities is covered by the following bodies:

CMRE:	Centre for Maritime Research and Experimentation	NMSG:	NATO Modelling and Simulation Group
AVT:	Applied Vehicle Technology Panel	SAS:	Systems, Analysis and Studies Panel
HFM:	Human Factors and Medicine Panel	SCI:	Systems Concepts and Integration Panel
IST:	Information Systems Technology Panel	SET:	Sensors and Electronics Technology Panel

The Mission of the NATO Modelling and Simulation Group (NMSG) is to promote cooperation among Alliance bodies, NATO member nations and Partner nations to maximise the effective utilisation of Modelling and Simulation. NMSG functions as a management body in which the full range of Modelling and Simulation (M&S) interests can be represented to ensure a coherent management and co-ordination of M&S across all Alliance activities in the principal application areas of defence planning, technology development and armaments acquisition.

The scope of activity under the NMSG is:

- a) M&S policy management. Promote exchange between the nations and Alliance organisations on M&S standards and best practice, which will co-ordinate and harness individual M&S capabilities and activities for the long-term systematic benefit of NATO. This exchange must be responsive to varied interests and respond to NATO roles and missions.
- b) Management and co-ordination of M&S activities. Develop, maintain and integrate a co-ordinated long-term strategy for NATO M&S activities. Identify and co-ordinate opportunities for M&S activities across the whole of the Alliance, including the NATO Military Authorities, the International Staff, technology development organisations, and application development organisations. Co-ordinate these activities to the best extent possible with the NATO nations and include the activities and interests of partner nations. Develop M&S project work plans and associated resource requirements for forwarding to NATO budget authorities.

NATO MODELLING AND SIMULATION GROUP LEADERSHIP

CHAIR

Mr Bharat PATEL
(United Kingdom)

VICE-CHAIR

COL (ret) John FERRELL
(United States of America)

NATO MODELLING AND SIMULATION COORDINATION OFFICE (MSCO)

MSCO Head

CDR Alvaro HERRAIZ SOLLA
alvaro.herraiz@cso.nato.int

MSCO Scientific Advisor

Mr Wim HUISKAMP
wim.huiskamp@tno.nl

MSCO Technical Officer / Acting Executive

Mr Adrian VOICULEȚ
adrian.voiculescu@cso.nato.int

MSCO Assistant

Mrs Renata DANAUSKĖ
msg@cso.nato.int

MSG-217 SYMPOSIUM

Modelling and Simulation as enabler for Digital Transformation in NATO and Nations

The NATO Modelling and Simulation Master Plan highlights the requirement for modelling and simulation (M&S) education in NATO. This symposium will provide attendees a forum to advance M&S in the Alliance. The combination of M&S users and developers concentrated in this one forum will not only educate attendees, but also provide fresh ideas for the advancement and effective use of M&S in NATO.

Theme

Models and simulations are critical assets allowing NATO and Nations to maintain and improve operational, technological and political superiority against their adversaries in all the domains, environments and dimensions of operations.

NATO is moving towards an operational concept on Multi-Domain Operations (MDO) for which Digital Transformation will play a critical role in pursuing the NATO MDO implementation principles of Agility, Interconnectivity, Unity and Creativity. In this context, Modelling and Simulation (M&S) technologies can help NATO and Nations to meet the requirements needed to address challenges that are getting increasingly complex, ambiguous and destabilizing. The future capabilities will need to meet known and unknown threats from state to individual actors, in adverse climate environments and acknowledging increased dependency on critical infrastructures. With a focus on the maritime domain, but embracing the multi domain approach, the Programme Committee invites papers in topics such as the use of simulation for decision support, concept development and experimentation, and training; to discuss advances in the M&S community.

Papers are to address and discuss M&S advances including Cloud Computing, Autonomous or Human-Machine Systems, AI and Machine Learning, XR, Computer Assisted Wargaming, Digital Twins, etc. Papers may cover the full range of domains and applications.

MSG-217 Symposium Programme Committee

Co-Chairs

Mr Alwin DE JONG (NATO STO CMRE)

Tel: +39 018 752 7481

Email: Alwin.DeJong@cmre.nato.int

Mr Wim HUISKAMP (NLD)

Tel: +31 88 866 3965

Email: wim.huiskamp@tno.nl

Members

Dr Pilar CAAMANO (NATO STO CMRE)

COL Miro COLIC (HRV)

Ms Susan HARKRIDER (USA)

Prof Dr Jan HODICKY (NATO ACT)

Dr Hans JENSE (NLD)

Mr Lionel KHIMECHE (FRA)

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Mr Jonathan LLOYD (GBR)

LTC (ret) Elisseos MAVRATZOTIS (SWE)

Prof Andrzej NAJGEBAUER (POL)

Dr Martin ROTHER (DEU)

Dr Robert SIEGFRIED (DEU)

Mr Simon SKINNER (GBR)

CALL FOR PAPERS

Introduction

The Symposium will be held in **La Spezia, Italy** from **24 to 25 October 2024**, and supported by the NATO Modelling and Simulation Group (NMSG) of the Science and Technology Organization (STO).

All sessions will be conducted at **PUBLIC RELEASE** level. The event is open to NATO nations, NATO Bodies, Science and Technology Organization Enhanced Opportunity Partners (STO EOP), Partnership for Peace countries (PfP), Partners across the globe (GP) and Invited Contact Countries (Brazil, India and Singapore).

Authors are invited to submit abstracts for this event. The Programme Committee will select a number of papers that are considered suitable for presentation at the Symposium. The selection of abstracts will be completed by the **17 June 2024** and authors will be notified thereafter.

All selected papers are eligible for publication in the (new) **[STO Peer-Review Journal](#)**.

Abstracts

The abstracts of papers offered for the Symposium should be submitted in the following format:

2024 NATO Modelling and Simulation Group Symposium
“Modelling and Simulation as enabler for Digital Transformation in NATO and Nations”
(MSG-217)

TITLE OF ABSTRACT

Title/Rank, Full Name of Author/Co-Author(s)

LENGTH	- 200 words maximum for abstract
CONTENT	- Introduction/relevance to the Symposium - Rationale - Description of methods employed and results obtained - Conclusions

Abstracts and completed **Details of Authors Forms** (ANNEX) should be submitted to MSCO by email: msg@cs.o.nato.int no later than **10 May 2024** for subsequent transmission to the Programme Committee.

The abstract must also contain a **declaration** from the author(s) that there are no restrictions regarding presentation neither during the event nor of the publication of the paper (as described in the abstract) in the Meeting Proceedings.

This Call for Papers is also available on the **[STO Events website](#)**¹.

¹ <https://events.sto.nato.int/index.php/upcoming-events/event-list/event/26-cfp/560-nmsg-symposium-modelling-and-simulation-as-enabler-for-digital-transformation-in-nato-and-nations-msg-217>

Updated Schedule

10 May 2024	Abstracts due
17 June 2024	Notice of acceptance sent to authors
15 July 2024	<i>Instructions for Authors</i> sent to Accepted Papers' Authors
15 July 2024	Enrolment opened
30 August 2024	Final Papers due (for US Authors ² only)
20 September 2024	Final Papers due
20 September 2024	PowerPoint Presentations due (for US Authors only)
11 October 2024	PowerPoint Presentations due
24-25 October 2024	Symposium

Additional Information

The Symposium details will be available on the [STO Events Website](#)³ after online enrolment has been opened.

Any questions on the [technical aspects of the scientific programme](#) should be addressed to the [Programme Committee Co-Chairs](#).

Questions on the [administrative aspects](#) of this event and requests for further information on STO activities should be addressed to [MSCO](#) (msg@cs0.nato.int).

Thank you for your contributions which are most appreciated by all the NATO Science and Technology Organization community.

Mr Alwin DE JONG and Mr Wim HUISKAMP
Programme Committee Co-Chairs

NOTE

Authors of papers selected for presentation at NATO STO events are not financially supported by this organisation

² Presentations, Papers and Publication Release Forms from U.S. authors or authors affiliated to U.S. organizations must be sent ONLY to NATO S&T Organization U.S. National Coordinator (osd.pentagon.ousd-atl.mbx.usnatcor@mail.mil)

³ <https://events.sto.nato.int/index.php/event-summary>