

# UK PONI

UK Project on Nuclear Issues

## Call for Presentations: The UK PONI 2021 Annual Conference

8-10th June 2021

Royal United Services Institute

Online

The UK PONI Annual Conference has established itself as the premier UK forum for developing the next generation of nuclear expertise from academia, industry, government, and the military. By bringing together emerging and established experts from across the nuclear field, this conference series promotes an informed and diverse dialogue on the most pertinent nuclear issues of the day.

### Opportunities for presenters

We are now accepting proposals for presentations at the 2021 Annual Conference. This year's conference will be held online, over three afternoons<sup>1</sup>. The event will consist of a series of short presentations from emerging experts in the field, keynote speeches, and networking opportunities. This conference will focus on the research topics listed at the bottom of this document. For the papers presented at the 2020 Annual Conference please click [here](#).

Selected presenters will have the opportunity to: 1) work with members of the UK PONI team to refine their ideas and research; 2) meet with external mentors and receive feedback prior to the conference; 3) present their work to a broad audience of nuclear experts; and 4) publish a short paper in RUSI's annual edited volume, *The UK PONI Papers*. The external mentors who have kindly agreed to review the selected presentations are experienced professionals in the nuclear field. The best presentations from the conference will be put forward to the following year's US PONI Capstone Conference, to be held at the US Strategic Command in Omaha, Nebraska.

### Format

You don't need to be an established expert (or experienced presenter) to present at a UK PONI conference – in fact, we'd prefer that you don't consider yourself the finished article but instead use the process of working with the UK PONI team and the external mentor to refine your presentation and to develop your knowledge and skills. Past presenters have included a wide range of people with diverse experiences, from experienced industrial facility managers explaining their work to a broader community to international relations undergraduates giving their first public presentation. They don't fit any kind of mould but rather are united by their interest in their subject, their enthusiasm to learn new things and connect with new people, and their commitment to putting out the best presentation and paper that they can. If you think you fit this description, then we would love to hear from you.

---

<sup>1</sup> Due to the ongoing health risks associated with the COVID-19 pandemic, the conference will take place online this year. We have been working on enhancing the online event experience for all attendees. We shall have more information available in due course.

We have introduced the possibility of selecting the type of session in which you would like to present. Please read these requirements carefully prior to submitting your proposal and contact the UK PONI team with any questions. Please bear in mind that you can select both plenary and roundtable but, if you do so, the PONI team will assign your presentation to one of the sessions depending on the best fit.

- **Plenary presentation**

Well-developed ideas or papers can be submitted to this section. All plenary sessions are ‘on-the-record’ and they will be livestreamed and recorded. The recorded sessions will be made available on the PONI website.

- **Small roundtable discussion**

Ideas under development or projects that cannot be presented on the record should be submitted to this section. We will organise two-three small roundtable discussions (depending on the number of submissions). These sessions are ‘off the record’ and no individual speaker or participant should be quoted (nor their identity or institutional affiliation revealed) without that individual’s express permission. Should a speaker wish or agree to talk ‘on the record’, the Chair will make this clear at the beginning of the session. In such cases, the speaker may be identified and quoted.

#### **Application guidelines and selection process**

Please send the 2021 Annual Conference proposal form to [ukponi@rusi.org](mailto:ukponi@rusi.org) by Monday, 29 March, writing ‘Annual Conference Proposal’ as the email subject.

UK PONI encourages presentation proposals from graduate students, emerging technical specialists, and early career professionals, including those with military experience. UK PONI is committed to creating a diverse and inclusive environment and thus we welcome applications from women, persons with disabilities, and underrepresented minorities.

Please sign up to join the UK PONI network and receive information about the annual conference and other events via [this link](#).

Presentations will be selected by the members of the selection panel, which consists of the UK PONI team and the UK PONI Board of Advisors, using a blind process. Additional invited presentations may also be included in the Annual Conference at the discretion of the selection panel.

## Research Topics for the 2021 UK PONI Annual Conference

The conference presentations will focus on, but will not be limited to, the topics listed in the research agenda below. We encourage proposals that address the set topics from diverse points of view, including both technical and policy perspectives. We do encourage innovative and creative concepts, but not speculation without basis – so proposals which evidence good consideration of methodology are particularly encouraged.

### New Perspectives on Arms Control and Disarmament

Recent challenges to strategic stability have prompted many concerns regarding the future of nuclear arms control and disarmament efforts against the background of the COVID-19 pandemic. What are the prospects for future bilateral and multilateral arms control agreements and what role should the nuclear weapon states play in reaching those accords? What will be the implications of new and emerging technologies for current offensive and defensive strategic systems?

The pandemic has further complicated efforts to take forward the multilateral disarmament agenda, notably by prompting the decision to postpone the 10th NPT Review Conference (RevCon). Could this postponement lead to a different outcome than was expected in 2020? Presentations can include the impact of the Treaty on the Prohibition of Nuclear Weapons (TPNW) on the nuclear regime, opportunities for the P5 Process, technical or political developments that will need to be addressed for future progress.

### UK Nuclear Enterprise

The UK has consistently been a world leader in nuclear technology and has been at the forefront of many new developments in the industry, both civil and military. UK PONI welcomes applications that consider the past, present, and future of the UK nuclear enterprise. Over the last two years, both industry and government have made some progress in implementing strategies and plans that will deliver the Nuclear Sector Deal (NSD) targets and commitments. As the UK begins to emerge from the crisis brought about by COVID-19, what are the challenges and opportunities for increasing innovation and workforce diversity and what can be done for the Deal to become the foundation for much longer-term progress? Also, what are the political, financial, technological and strategic implications of the UK's decision to build a replacement for its current nuclear warhead? What role will the UK play in the process of devising multilateral nuclear arms control? Proposals could address key lessons learnt from past decisions, argue a position on a critical upcoming decision, suggest new pathways for the UK nuclear sector, or discuss the military practice of nuclear deterrence.

### Future Nuclear Technologies

To help build a future in which nuclear technology is used safely and responsibly, policymakers and technologists need to work together. We need to foster an environment where technologists get involved in public policy. This PONI topic seeks to generate new ideas about how to move nuclear technologies forward while making the world safer and more secure. New types of nuclear reactors are advancing and will require new or updated safeguards approaches and technologies; cybersecurity regulations are slowly adapting to the growing cyber threat to nuclear facilities; additive manufacturing (3D-printing) may lower technical barriers to proliferation; quantum technologies will have significant impact on national security, from secure communications to better detection of stealth aircraft, submarines, and underground facilities. Artificial intelligence and machine learning can create new opportunities to find and expose potentially dangerous proliferation activities. We welcome proposals that advance understanding of both the technical and the political implications of rapid advances in nuclear and emerging technologies.

## **Regional Deterrence Dynamics**

Regional nuclear issues continue to top international security agendas. Nuclear arsenals and activities in South Asia and Chinese nuclear modernisation plans are creating new pressures and uncertainties across the continent. The evolution of Sino-Russian relations in the political and security realms presents a challenge for India. Persistent concerns about Russia's nuclear doctrine and modernisation, North Korea's continued progress on its nuclear and missile programmes, and the ongoing uncertainty about the longer-term future of the Joint Comprehensive Plan of Action are just some ways in which nuclear issues around the world present significant risks. UK PONI welcomes proposals that consider these regional issues, the challenges they present, and options for a way forward.

## **Innovative Proposals**

We also welcome submissions for alternative types of sessions, including interactive panel discussions and other innovative formats (feel free to be creative!). This opportunity should encourage prospective participants to come up with suggestions that the PONI team have not considered so far and/or the current format of the conference does not support (i.e. visual/audio documentaries; creative arts etc.).

Unlike the paper submissions, these submissions are not reviewed anonymously and should include a separate page with the names, affiliations, and roles of people who will be leading or presenting in the session, along with additional information about the 'vision' behind the proposal. Successful submissions will typically be assigned a 1-hour session within the conference programme.