UK PONI
UK Project on Nuclear Issues

Call for Presentations
The UK Project on Nuclear Issues 2022 Annual Conference

7th June 2022, Royal United Services Institute

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.

We are now accepting proposals for presentations at the 2022 Annual Conference. After two years of mostly virtual events, we are looking forward to hosting this year's conference in person. 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 2021 Annual Conference and testimonials from presenters, please click **here**.

Selected presenters will have the opportunity to:

1) work with members of the UK PONI team and external mentors to refine their ideas and research
2) present their work to a broad audience of nuclear experts
3) publish a short paper in RUSI's annual edited volume, *The UK PONI Papers*.
4) have the chance to present at the US Strategic Command in Omaha, Nebraska. The best presentations from the conference can be put forward to the following year's US PONI Capstone Conference, to be held at STRATCOM 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 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.

Application guidelines and selection process

Please send the 2022 Annual Conference proposal form to ukponi@rusi.org by Monday, 28th March, writing 'Annual Conference Proposal' as the email subject.

UK PONI encourages presentation proposals from undergraduate and 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.

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 2022 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.

1. **The Nuclear Nonproliferation and Disarmament Landscape**

The delay of the Non-Proliferation Treaty (NPT) Review Conference (RevCon) has given states more time to put forth a positive compelling vision for the treaty, to transcend political divides among its states parties and inspire renewed faith in the future of the NPT and the broader global nonproliferation regime. What tangible actions can the nuclear community take to chart a successful way ahead for the 2025 RevCon?

Presentations can include the impact of the Treaty on the Prohibition of Nuclear Weapons (TPNW) on the nuclear regime, opportunities for the P5 Process, risk reduction measures, technical or political developments that will need to be addressed for future progress, as well as topics that seek to enhance our understanding of strategic concepts such as strategic stability, tailored deterrence, second-strike force etc.

2. **The UK Nuclear Enterprise and the Sustainability of Nuclear Skills**

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. Over the last few 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. UK PONI welcomes applications that consider the past, present, and future of the UK nuclear enterprise.

What are the challenges and opportunities for increasing innovation and workforce diversity and what can be done for the NSD to become the foundation for much longer-term progress? How can the government and industry mitigate for the shortage of skilled workers that will inevitably create competition for specialist skills, pushing up labour prices? Proposals could address key lessons learnt from past decisions, argue a position on a critical upcoming decision, or suggest new pathways for the UK nuclear sector.

3. **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. We welcome proposals that advance understanding of both the technical and the political implications of rapid advances in nuclear and disruptive technologies.

4. **China's Nuclear Modernization: Motivations and Regional Implications**

Reports that China is developing hypersonic missiles and building nuclear silos have fuelled concerns that it aims to substantially expand its nuclear weapons arsenal. Why is China building a more robust nuclear force? What military rationale may have contributed to this development? What are the security implications and prospects for future arms control cooperation with China in the context of its nuclear expansion? What consequences will China's pursuit of military modernization have for nonproliferation norms? It is increasingly important to understand the motives underpinning Beijing's evolving nuclear stance as well as the implications of this change, so we welcome proposals that seek to address questions related to this topic.

5. **Innovative Proposals**

We also welcome submissions for alternative types of sessions, including interactive panel discussions and other innovative formats (i.e. poem-reading, plays, musicals – 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. Feel free to contact us to discuss your idea before submission, we are happy to help you shape your proposal for this theme.

Please sign up to join the UK PONI network and receive information about the annual conference and other events via **this link**.