

UK PONI

UK Project on Nuclear Issues

The 10th UK PONI Annual Conference: Call for Presentations

11th June 2020

Royal United Services Institute

Whitehall, London

Now celebrating its 10th anniversary, 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 from UK PONI members for presentations at the 2020 Annual Conference, which will take place on 11 June at the Royal United Services Institute for Defence and Security Studies in London. The event will consist of a series of short presentations by UK PONI members, keynote speeches, talks from UK PONI alumni from the first ten years of the initiative, and an evening dinner reception. This conference will focus on the topics listed in the research agenda overleaf. For the presentations from the 2019 Annual Conference please click [here](#).

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 encourages all interested parties to apply, especially those from underrepresented communities. Selected presenters will have the opportunity to: work with members of the UK PONI team to refine their ideas and research; present their work to a broad audience of nuclear experts; and publish a short paper in RUSI's annual edited volume, *The UK PONI Papers*. The best presentations from the conference will be put forward to the following year's US PONI Capstone Conference, to be held at US Strategic Command in Omaha.

You don't need to be an established expert 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 huge range of people with really 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 get a presentation proposal from you.

Research Topics for the 10th UK PONI Annual Conference

As we celebrate the past ten years of UK PONI, we want to take the opportunity to look forward at what the next two decades might hold in three key areas. We are therefore asking our presenters to consider how the world could or should be affected out to 2040 in the following domains: emerging technology and nuclear proliferation; sustaining and developing nuclear expertise; and the contribution of UK nuclear weapons to Euro-Atlantic security over this period. Proposals are not restricted to focusing narrowly how these issues might appear in 2040, and can consider any time frame within this period; proposals should however all contain a substantial forward-looking element, and we are not looking for analyses strictly bound to the next few years. We do encourage innovative and creative concepts, but not speculation without basis – so proposals which evidence good consideration of methodology are particularly encouraged.

Emerging technology and nuclear proliferation

New technologies, the pace of their development, and their spread to various state and non-state actors present both challenges and opportunities for nuclear non-proliferation and counter-proliferation. We would like to receive presentation proposals that discuss how these challenges and opportunities might manifest and evolve over the coming two decades. These might include for example analysis of how advanced manufacturing techniques, such as computer enabled additive manufacturing, might lower the bar for nuclear proliferation; or proposals could address the ways in which counter-proliferation activities could be supported by new information flows and more readily available surveillance and imagery technology; might further increases in computing power mean that design and engineering can be accelerated or rely less heavily on physical test; and could developments in other domains, such as advanced biological, chemical or cyber technologies, mean that they supplant nuclear weapons as the basis of strategic deterrence?

Proposals could focus on how the development and spread of technologies are currently impacting upon non-proliferation and counter-proliferation, and project that some distance forward, or they could postulate what impact one or more emerging technologies may have on future proliferation. These issues could be analysed in the vertical (within states) or horizontal (between states) paradigms, or could unify the two.

Challenges and solutions for sustaining nuclear expertise in the next generation

The challenge of sustaining nuclear expertise in the next generation is not new. Problems with maintaining technical nuclear expertise were first raised as a concern in the UK during the [1950s](#). More recently, a 2015 UK government report, entitled *Sustaining Our Nuclear Skills*, stated “there are [substantial challenges](#) to overcome” in building a “skills base capable of meeting the demands of the new nuclear sector”, with increasing demand for specialist skills interacting with an existing industry demographic that is still recovering from the legacy of low past investment. The situation is similarly challenging in the policy community, and was the main driver for the initiation of the US [Project on Nuclear Issues](#) in 2003 and UK PONI six years later; now though a key challenge is managing the so-called “leaky pipeline” where early- to mid-career professionals leave the field for various reasons after a promising start in it, as well as wider issues of diversity and opportunity within the field.

We would like to hear forward looking proposals about how the next-generation nuclear communities might be curated, supported and developed in the coming twenty years, and how they might be transformed throughout this period into the experts and leaders that the field needs. We would also welcome discussion of the demographic and societal challenges and expectations that the field might need to account for as we move through that period. These proposals might address the future of initiatives like UK PONI and wider field issues – as [some](#) have already begun to do – and could put forward concrete proposals for government, industry and academia to engage with.

UK nuclear weapons and Euro-Atlantic security

The UK currently operates what it considers to be a credible minimum deterrent against what the 2015 Strategic Defence and Security Review called “the most extreme threats to our national security and way of life”, which it argues helps “to guarantee our security, and that of our allies”. But the threat landscape and international security environment is evolving. Historically focused on the perceived threat from the Soviet Union and Warsaw Pact, UK thinking on its nuclear deterrent now takes in a more diverse range of perceived threats from a broader range of sources, and this may change further in years to come.

We would like to hear proposals which discuss how challenges and opportunities to UK nuclear deterrence policy, posture and procurement might emerge in the coming two decades, and how they might best be responded to. Possible areas to address might include: potential developments that might challenge the UK’s current interpretation of credible minimum deterrence, and cause this credible minimum to rise or to fall (including the possibility of abandonment of nuclear deterrence entirely); assessments of the circumstances and parameters for UK participation in formal strategic arms control initiatives, or in less formal risk reduction measures, without harming its overall security environment; and future allied perceptions of the credibility and utility of UK nuclear deterrence under various circumstances.

Application guidelines and selection process

Presentation proposals should be strictly no longer than 300 words and should include the following:

1. Your name, organisation/university affiliation, and position;
2. The notional title of your presentation;
3. A summary of your presentation, including its contextual background, and the research topic it covers.

Please send presentation proposals to ukponi@rusi.org by **Monday, 6 April**, writing ‘Annual Conference Proposal’ as the email subject. The UK PONI Annual Conference is open to registered UK PONI members only; to register for UK PONI free of charge, please sign up via [this link](#).

Presentations will be selected using a blind process: the members of the selection panel, which consists of the UK PONI team and the UK PONI Board of Advisors, will not know who has produced which proposal at the time that they make their recommendations. Additional invited presentations may also be incorporated in the Annual Conference, at the discretion of the selection panel.

Travel bursaries:

For presenters based in the UK travelling from outside of London, travel and accommodation bursaries will be provided for the conference. Please note that there is a limited amount of funding for international travel.