

Editorial (eng.)**Between Destabilization and Enabling Resilience:
Perspectives from the Technical Sciences, Social Sciences, and Law**

In this special issue of the “Journal of International Peace and Organization”, we approach the topic of resilience from the different perspectives of the technical sciences (with a focus on new technologies), the social sciences, and law. In our view such interdisciplinary exchange of views within the research field of peace and conflict research is highly important, yet at the same time all too rare.

Today’s international security environment is marked by the demise of the classical arms control architecture, the return of great power politics, and eroding trust among states. New developments in military and dual use technology as well as weapon modernization programs add complexity to any effort towards peace and security. The importance of dealing with these issues in an informed manner has been widely accepted since Russia’s invasion of Ukraine in February 2022.

The first part of this special issue is based on the interdisciplinary conference Science Peace Security 2021 in Aachen, which examined the impacts of new technologies on resilience. It sought concepts on how a more resilient security environment can be achieved through scientific contributions and policy measures towards crisis resolution, risk assessments, confidence-building, and arms limitations. Nuclear, biological, chemical, and space threats as well as developments in information technology such as cyber or artificial intelligence issues, and any other relevant technical fields, were examined.

After two rounds of peer-review the following four papers have been selected for publication:

The article “The militarization of space – unique opportunities for arms control” by **Arne Sönnichsen** (Universität Duisburg-Essen), **Sara Hadley** (Institute for Peace Research and Security Policy at the University of Hamburg), **Jürgen Altmann** (TU Dortmund), **Maximilian Bertamini** (Institute for International Law of Peace and Armed Conflict (IFHV), Ruhr-University Bochum), **Max Mutschler** (Bonn International Centre for Conflict Studies), and **Jürgen Scheffran** (Universität Hamburg) addresses the growing concern of an increasing militarization, a possible weaponization and the development of space into a theater of war. The question whether arms control is a solution here or whether measures of this fail against the background of the complexity of space technologies is analyzed in this paper in an interdisciplinary way combining perspectives from physics and technology, political science, and international law. On the one hand, these insights are used to discuss the 1972 Anti-Ballistic Missile (ABM) Treaty; on the other hand, they are intended to illustrate that different aspects in each discipline not only constrain but also facilitate arms control in space.

The article “Quantum technology as the new technology that needs assessment” by **Michal Krelina** (Czech TU Prague) and **Jürgen Altmann** (TU Dortmund) deals with the

emerging field of quantum technology (QT), which is characterized by a large dual-use factor. The paper deals with the military level of this technology – QTs do not introduce new stand-alone weapon systems, but significantly improve existing weapon systems and command and control systems. The aim of the paper is therefore to present QTs and their potential (military) applications, the current state and activities in the defense and security sector and associated potential problems for international security.

In her contribution “Trustworthy and Explainable: A European Understanding of (Weaponised) Artificial Intelligence”, **Stefka Schmid** (PEASEC, TU Darmstadt) builds on work in human-computer interaction (HCI) and technology assessment and addresses the EU’s vision of artificial intelligence and understanding of human-AI interaction, including explainability, interpretability, and risks. Such an interdisciplinary view is relevant considering debates on the development of dual-use AI and related innovation policies, thus contributing to debates of vision assessment in professionalized political contexts.

The contribution “Small Armed Aircraft and Missiles – Dangers for International Security” by **Jürgen Altmann**, **Mathias Pilch**, and **Dieter Suter** (TU Dortmund) presents information on small (≤ 2 m) and very small (≤ 0.2 m) uninhabited aerial vehicles (UAVs) collected in a UAV database. As armed forces are increasingly interested in such small and very small aircraft and missiles, this paper discusses an assessment of future technological trends under the criteria of preventive arms control. In addition, options for preventive bans and restrictions with varying degrees of comprehensibility, confidence building, and export control are discussed.

From the perspective of social science and law, resilience is best understood as the capacity of a given system to overcome (*coping capacity*), to adjust to current or future crises (*adaptive capacity*), and to re-organize itself to avoid future crises (*transformative capacity*). In its second part, the special issue follows up the discussion started in Volume 95 (Issue 1–2) with its focus on societal divisions and social cohesion in situations of crisis. Yet we broaden the focus from the COVID-19 pandemic to broader lines of arguments in law and social sciences. The four contributions come from the legal and social sciences and highlight pressing issues – such as climate change, refugees, and war – and various strategies for addressing them. The following three papers and one conference report were selected for publication after two rounds of peer-review.

The article “Eco-Authoritarianism and the German Constitution: Questions, Concepts, and Resilience” by **Michael Kalis** (IKEM and University Greifswald) and **Philipp Thapa** (IKEM and University Nijmegen) looks at the proper way to deal with climate protection in law. The effects of climate change force politicians to act sustainably, which is not possible without interfering with civil liberties. In this context, it is necessary to balance between strong interventions to protect the environment and the safeguarding of democratic civil liberties. Using Germany as an example, the authors analyse how the constitution and the protection of the climate can be reconciled without creating an eco-dictatorship.

Mais Masadeh’s (Institute for International Law of Peace and Armed Conflict (IFHV), Ruhr-University Bochum) paper “Resilience during the COVID-19 pandemic: A comparison case between Syrian refugees residing in camps and urban areas in Jordan” focuses on resilience strategies of vulnerable individuals in times of multidimensional crisis. Not only are they fleeing their home country of Syria due to the war, but they are also affected by the effects of the pandemic, as is their host country (Jordan). In times of these multiple challen-

ges, they develop their own strategies to deal with them. However, in addition to identifiable common strategies of dealing with the challenges, there are also differences in the strategies of refugees in Zaatari refugee camp compared to those in the city Irbid. The former formed trusted networks, while those in Irbid relied primarily on family unity and sought solidarity with the host community.

Two further contributions with a different perspective round off the contributions on resilience from the perspectives of law and political science. Both contributions concern war as a concept or legal object in historical and current discussions. **Michael Hanzel** (University Stuttgart) deals with the different conceptions of war from a history of science perspective. The article highlights the different perspectives and approaches to the concept of war that have shaped scholarly and public discussions about it. An insight into the current jurisprudential discussion on the Ukrainian war is provided in the conference report by **Dimitrios Parashu** (Leibniz University Hannover). It summarizes the contributions of the recent conference “Modern Challenges in International Humanitarian Law” at Leibniz Universität Hannover on current debates regarding the war in Ukraine.

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Christian Reuter, Malte Götsche, Friederike Frieß, Pierre Thielbörger und Johannes Vüllers

For the Technical Sciences: Christian Reuter¹, Malte Götsche², Friederike Frieß³

For Law and Social Sciences: Pierre Thielbörger⁴, Johannes Vüllers⁵

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- 1 Science and Technology for Peace and Security (PEASEC), Technical University of Darmstadt, Germany.
 - 2 Nuclear Verification and Disarmament Group, RWTH Aachen University, Germany.
 - 3 University of Natural Resources and Life Sciences, Vienna, Department of Water, Atmosphere and Environment, Institute of Safety and Risk Sciences, Austria.
 - 4 Institute for International Law of Peace and Armed Conflict (IFHV) and Law Faculty, Ruhr-University Bochum.
 - 5 Institute for Development and Peace Research (INEF), University Duisburg-Essen.