



## Foreword: Special Issue Featuring Papers from the 2023 NEA Rising Stars Workshop



It is with great pleasure that we present this special issue featuring contributions from the participants at the inaugural Nuclear Energy Agency (NEA) Rising Stars Workshop. The NEA Global Forum on Nuclear Education, Science, Technology and Policy established the Rising Stars Programme in 2023 with a clear purpose: to support and encourage young women as they embark on careers in nuclear and to highlight the depth and diversity of talent that is shaping the future of nuclear science and engineering.

The papers collected here reflect the breadth of perspectives and expertise that the next generation of researchers brings to the field. They address not only technical challenges, but also the societal, environmental, and human dimensions of nuclear technologies. What unites these contributions is a shared commitment to scientific rigor, to responsible innovation, and to a more inclusive nuclear community.

The workshop that inspired this issue was designed not only as a technical forum, but also as a space for mentorship, networking, and confidence-building. The work presented in this special issue demonstrates the value of creating such opportunities and underscores the importance of continuing to invest in the diversity of the nuclear research community.

We hope this collection will serve both as a showcase of early-career research and as a reminder of what can be achieved when emerging voices are empowered and supported. The future of the nuclear sector depends on attracting and retaining a wide range of perspectives, and the authors represented in these pages exemplify the innovation, curiosity, and leadership that will drive the field forward.

We congratulate all Rising Stars who contributed to this special issue and look forward to seeing their continued impact on the nuclear sector in the years ahead.

William D. Magwood IV  
Director-General, Nuclear Energy Agency

### ABOUT THIS ISSUE

Over the years, the OECD Nuclear Energy Agency (NEA) has worked to increase direct engagement with academic institutions that are responsible for developing the next generation of nuclear science and technology experts. In 2021, the NEA established the Global Forum on Nuclear Education, Science, Technology and Policy<sup>a</sup> (Global Forum on Nuclear Education) in partnership with academia to provide a platform for sustained cooperation among academic institutions, policymakers, and key stakeholders in the nuclear energy sector and civil society.

The Rising Stars Programme<sup>b</sup> puts the weight of the NEA and the Global Forum on Nuclear Education's academic institutions behind efforts to build new pipelines that improve gender balance in the nuclear field. It does this by connecting participants with resources, people, and support that help to welcome and integrate these participants into the global nuclear community. The program organizes annual workshops with a series of activities, including panel talks by experts, mentoring sessions, and networking opportunities. Rising Stars are also invited to present their own research through poster and oral presentations.

The inaugural Rising Stars Workshop took place September 20–21, 2023, at the Massachusetts Institute of Technology (MIT), United States. This issue features papers derived from the participants' presentations at the MIT workshop. A second Rising Stars Workshop was held in November 2024 at the European Commission Joint Research Centre, Germany, and the third edition was hosted by KTH Royal Institute of Technology, Sweden, in December 2025.

<sup>a</sup> [https://www.oecd-nea.org/jcms/pl\\_57917/](https://www.oecd-nea.org/jcms/pl_57917/).

<sup>b</sup> [https://www.oecd-nea.org/jcms/pl\\_78023/](https://www.oecd-nea.org/jcms/pl_78023/).