



## The Neutron Scattering Society of America

<http://www.neutronscattering.org>

The Neutron Scattering Society of America is pleased to announce the 2025 recipient of the Anne Mayes Prize.

### **Professor Despina Louca**

University of Virginia

is the recipient of the

### **2025 Anne Mayes Neutron Scattering Prize**

of the Neutron Scattering Society of America (NSSA) with the citation:

**"For sustained and inspiring leadership within the North American neutron scattering community, dedicated mentorship and outreach to next-generation neutron scientists, and research excellence particularly as it relates to understanding structure-property relationships in quantum and topological materials."**



Prof. [Despina Louca](#)

The Neutron Scattering Society of America (NSSA), in collaboration with the Massachusetts Institute of Technology, established the Annes Mayes Neutron Scattering Prize in 2022. This award recognizes the important contributions of women in neutron scattering. It was established in honor of Professor Anne Mayes, who was an outstanding scientist and attentive mentor. Her work showed the importance of fundamental research on polymers for solving societal problems related to clean energy and clean water.

The nominations were reviewed by a committee of experts in the field of neutron science and the NSSA is pleased to announce that the recipient of the 2025 Anne Mayes Neutron Scattering Prize is Professor Despina Louca from the University of Virginia. The prize consists of a honorarium and an invitation to attend and speak at the 2025 ICNS in

Copenhagen, Denmark, (<https://icns2025.dk/>) where the award will be presented.

Professor Louca's career has spanned nearly three decades. She is well known for her outstanding research using neutron scattering, serving and advocating for the neutron scattering community, and her support and mentoring of the next generation of neutron scattering users. These contributions are truly exemplary of the characteristics of Anne Mayes' work and life.



## The Neutron Scattering Society of America

<http://www.neutronscattering.org>

Professor Louca has used neutron scattering techniques to provide pioneering insights into the structure-property relationships of quantum and topological materials. She was among the early users of the neutron Pair-Distribution-Function (nPDF) technique, and she helped to elucidate its power in providing complementary local structure information to its x-ray counterpart. She is also an expert in neutron diffraction and spectroscopy studies. Significant scientific contributions include nPDF studies of colossal magnetoresistive manganites to provide direct insight into the local lattice distortions in these compounds and comprehensive neutron scattering studies on topological materials including iron-based superconductors and topological materials.

Professor Louca has been a key advocate for the neutron scattering community over the years. She played a crucial role in the efforts to build the NPDF instrument at the Lujan Center at Los Alamos National Laboratory. Notably, this instrument played a key role in the development of local structure analysis and establishing nPDF as a mature and standard tool for investigating complex disorder in crystalline materials. Professor Louca also provided outstanding leadership as the NSSA president from 2016-2020 by improving the organization in many ways. She played an instrumental role in revamping the society webpage, she led the effort to organize two ACNS conferences, and she oversaw the creation of the NSSA Anne Mayes Award to honor the contributions of women and minorities to neutron scattering. Professor Louca also served on the ORNL Neutron Advisory Board in 2021 and as the only neutron facilities user on the DOE Basic Energy Sciences Advisory Committee from 2017-2020. Finally, she held officer positions in both the NCNR and SNS-HFIR User Groups.

Professor Louca is widely regarded as an outstanding mentor for students, postdoctoral fellows, and early career scientists. She established the NSSA travel award for students, she served as a member on the Education Outreach Committee for the Spallation Neutron Source, she served as a member of the American Physical Society Panel on Public Affairs, and she has trained countless students and postdoctoral fellows in neutron scattering research.

Professor Louca earned her Ph.D. at the University of Pennsylvania in 1997. She then moved on to a postdoctoral position at Los Alamos National Laboratory before becoming a professor at the University of Virginia in 1999. She received a Distinguished Researcher Award from the University of Virginia in 2021 and she is a fellow of the American Physical Society and the Neutron Scattering Society of America.

The Neutron Scattering Society of America is thus excited to present the Anne Mayes Award to Professor Louca for her exemplary achievements and service. Her keynote lecture at the ICNS is eagerly anticipated.