ANS® CALL FOR PAPERS

2026 International Congress on Advances in Nuclear Power Plants (ICAPP 2026)

November 15-18, 2026 | Phoenix, AZ | Arizona Grand Resort & Spa

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IMPORTANT DEADLINES

FULL PAPERS DUE
JUNE 26, 2026
NO EXTENSIONS

AUTHOR NOTIFICATION OF ACCEPTANCE
JULY 20, 2026

REVISED FULL PAPERS DUE
AUGUST 7, 2026

ABOUT THE CONFERENCE

The International Congress on Advances in Nuclear Power Plants (ICAPP) provides a forum for leaders of the nuclear industry to exchange information, present results from their work, review the state of the industry, and discuss future directions and needs for the deployment of new nuclear power plant systems around the world.

This Congress welcomes the submission of full-length technical papers that will be peer reviewed and, if presented, published. All authors will present their papers in English. About 20 minutes will be allotted for each presentation.

ICAPP 2026 will be held as an international embedded topical meeting during the 2026 American Nuclear Society Winter Conference, and the registration fee will give access to both meetings.

PAPER SUBMISSION PROCESS

Authors must submit full-length papers (7–10 pages) formatted with the conference paper template. Papers will be reviewed for topicality, significance, and novelty. Authors of accepted papers must present their papers at the Congress in order to be published in the proceedings. When submitting, please follow these additional guidelines:

- Please follow the full paper template, posted to the ICAPP home page.
- Do not use all capital letters for the title or any part of any authors' names. For the title of the abstract, Capitalize the First Letter of Major Words. Author names should be First Name or Initial(s) followed by Last Name.
- The names of all authors should be entered into the Authors page in the Electronic Paper Submission and Review (EPSR) system. List the authors in the same order in which their names appear in the abstract.
- Author information in the conference program is derived from the entries in the EPSR's Authors page.
- In the EPSR, authors' affiliations should match the affiliation provided in the abstract itself. If an author has multiple affiliations, enter the ONE that should be included in the program, assuming the abstract is accepted.

SUBMIT A PAPER

https://apps.ans.org/esr/event-icapp2026/

PROGRAM SPECIALIST

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CONTENT

1. Introduction: State the purpose of the work.
2. Description of the actual work: Must be new and significant.
3. Results: Discuss their significance.
4. References: If any, must be closely related published works. Minimize the number of references.
5. Do not present a bibliographical listing.
6. If a disclaimer is required (e.g., related to the author's employer), it is the author's responsibility to include the disclaimer in the summary as either an end-of-summary note (preferred) or footnote. Please ensure such footnotes do not interfere with the bottom margin, and do not format disclaimers as headers or footers.

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TECHNICAL TRACKS

1. NUCLEAR POWER PLANTS

Reactors designed to produce electricity for wide-area synchronous grids or microgrids; various power scales (kilowatt to gigawatt), operating temperatures, coolants, and neutron energy spectra; design and development issues; improved power conversion, resource utilization, and/or waste characteristics.

2. REACTORS FOR HEAT AND COMBINED HEAT AND POWER

Reactors designed to produce industrial process heat, district heat, liquid and gaseous fuels (including hydrogen), hybrid and integrated energy systems (including energy storage), cogeneration; various power scales (kilowatt to gigawatt), operating temperatures, coolants, and neutron energy spectra; design and development issues.

3. PORTABLE AND PROPULSION REACTORS

Reactors designed for remote operations, disaster relief and recovery, space exploration, propulsion/locomotion on land/air/water/space; various power scales (kilowatt to megawatt), operating temperatures, coolants, and neutron energy spectra; design and development issues.

4. NON-ENERGY APPLICATIONS OF REACTORS

Reactors not designed for energy production; radionuclide production, actinide management; research, test, and demonstration platforms; various power scales (kilowatt to gigawatt), operating temperatures, coolants, and neutron energy spectra; design and development issues.

5. REACTOR PHYSICS

Nuclear data libraries and related error files, lattice calculation, deterministic and Monte Carlo approaches, core calculation, multi physics coupling, physics of new fuels, new fuel management, new reactor core designs, characterization of spent fuels.

6. THERMAL HYDRAULICS

Authors with expertise in thermal hydraulics are encouraged to submit papers to Advances in Thermal Hydraulics (ATH) 2026 being held concurrently with ICAPP 2026. See https://www.ans.org/meetings/ath2026/.

7. FUELS, MATERIALS, AND STRUCTURES

Fuel, core, reactor pressure vessel and internal structures, advanced materials issues, environmental effects and fracture mechanics, concrete and steel containment design and analysis, design and monitoring for seismic, dynamic and extreme accidents, irradiation issues, materials and structural mechanics issues, aging material issues, codes and standards for new plant designs.

8. PLANT SAFETY, REGULATIONS, AND LICENSING

Authors with expertise in nuclear power plant safety, regulations, and licensing are encouraged to submit papers to Advanced Reactor Safety (ARS) 2026 being held concurrently with ICAPP 2026. See https://www.ans.org/meetings/ars2026/.

9. MARKETS AND FINANCING

Interdisciplinary modeling and analysis, market-level nuclear power plant deployment modeling, innovative approaches to nuclear project financing, economics-based optimization methods, business and economic challenges.

10. INNOVATIVE MANUFACTURING AND CONSTRUCTION

Improved construction techniques including factory fabrication, additive manufacturing, on-site manufacturing, and modular construction, supply chain readiness.

11. OPERATION, PERFORMANCE & RELIABILITY MANAGEMENT

O&M costs, life cycle management, risk-based maintenance, operational experiences, performance and reliability improvements, outage optimization, human factors, plant staffing, major component reliability, repair and replacement, in-service inspection, codes & standards, supply chain management and resilience, long-term operations and life extensions.

12. FUEL CYCLE & WASTE MANAGEMENT

TRU separation processes, fuel and target design for transmutation, partitioning and transmutation (P&T) deployment, waste minimization, advanced reprocessing processes and technologies, nuclear material recycling technologies, modeling of processes, back-end fuel cycle options, uranium and plutonium management issues, waste conditioning storage and disposal, thorium cycles, Accelerator Driven Systems (ADS), fuel supply chains, non-proliferation concerns.