Advances in Nuclear Fuel Management (ANFM 2025)

July 20-23, 2025 | Clearwater Beach, FL | Sheraton Sand Key Resort

한국원자력학회 Korean Nuclear Society

CANADIAN NUCLEAR SOCIETY / SOCIÉTÉ NUCLÉAIRE CANADIENNE

CALL FOR PAPERS

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SUMMARIES DEADLINE:
FRIDAY, NOVEMBER 1, 2024

NOVEMBER → SUBMISSION OF SUMMARIES: **November 1, 2024**

JANUARY → AUTHOR NOTIFICATION OF ACCEPTANCE: **January 15, 2025**

APRIL → FULL PAPERS DUE: **April 1, 2025**

ABOUT THE CONFERENCE

It has been eight years since the last ANFM meeting. Since then, nuclear fuel management has changed significantly with the introduction of new fuel designs, advanced technology fuel (ATF), and longer cycle lengths. In the near future, we will see increased enrichments and increased burnup limits in light water reactors (LWRs). In addition, many new advanced reactor concepts are being planned that will require economical fuel cycles and the introduction of new fuel types. On top of this, machine learning and artificial intelligence applications loom on the horizon with the promise of increased efficiency. Join us in sunny Clearwater Beach as international representatives from fuel vendors, utilities, support organizations, national laboratories, and universities get together to share and discuss the latest developments in nuclear fuel management. The conference will include plenary sessions, technical sessions, panel sessions, and workshops.

GUIDELINES

Submit summaries (up to four pages) describing work that is of value to the nuclear fuel management community and the nuclear industry in general. Summaries will be reviewed and full papers (up to ten pages) will be required for the meeting. Papers are presented orally at the meeting, and presenters are expected to register for the meeting. All accepted and presented papers will be published in the conference's Proceedings. Published papers become the property of ANS. Under no circumstances should a paper be published in any other publication before presentation at the ANFM meeting. An ANS copyright form is required for all papers.

FORMAT

• We are first soliciting summary papers with a maximum length of four pages to be reviewed. Full papers with a maximum length of ten pages will be required if the summary is accepted. Use the provided Word or LaTeX templates from the website. Papers not formatted according to the template will be rejected. If a paper exceeding ten pages is accepted, the page charge is $100/page for any page more than ten.
• Do not include headers, footers, page numbers, bookmarks, text highlighting, or hyperlinks to references, figures, and tables in the text of your summary or paper in your final PDF document. Do not save your document as "read only."
• For the title of the summary or paper, Capitalize the First Letter of Major Words; do not use all capital letters.
• Do not use all capital letters for any part of any author's name.
• Enter the names of all authors into the Authors page in the EPSR. List the authors in the same order in which their names appear on the paper. Authors' affiliations should match the affiliation provided on the paper itself. If an author has multiple affiliations, enter the one that should be included in the program and in the meeting proceedings, assuming the summary is accepted.
• Your paper should be submitted in PDF format.

JOURNAL COLLABORATION

Authors will be able to submit a full-length journal article for a special issue of *Nuclear Technology*.

SUBMIT A SUMMARY
https://epsr.ans.org/meeting/?m=431

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TECHNICAL TRACKS

- Addressing Practical Design Constraints on Fuel Management
- Advanced Fuel Assembly and Burnable Absorber Designs
- Advanced Technology Fuel (ATF)
- Advanced Fuel Forms (TRISO, metal fuel, etc.)
- Automated and Interactive Fuel Management Design and Optimization Tools
- Experiences and Advances in On-Line Core Monitoring
- Extended Fuel Cycles and Economic Analysis
- Innovative Core Loading Strategies and Methods
- Application of Artificial Intelligence and Machine Learning Tools
- Fuel Temperature Feedback for Steady-State and Transients
- Advances in Reactor Stability
- Utilities Experience in Reload Design and Licensing
- Utility Experience with 24-Month Fuel Cycles
- High Enrichment/High Burnup Strategies
- Management, Design and Operation Issues of Advanced Reactor Fuels
- Fuel and Core Design Based on Thorium Cycles
- Plutonium and Higher Actinide Recycle
- MOX Utilization in Reactors
- Generation of Cross Section Libraries
- Recent Experience with New ENDF/B and JEFF Cross Section Libraries
- Whole Core Transport Calculations
- Nodal and Lattice Physics Methods
- Validation of Core Analysis Tools for Fuel Management
- Model Comparisons Against Measured Reactor Power Data
- Generation-IV Design Concepts
- Advanced Moderators and Coolants (Graphite, Salt, etc.)
- Fuel Management in Fast Reactors
- Fuel Management in Gas-Cooled Reactors
- Design Experience with SMR Core Loading Patterns