
WANDA 2023
February 27 – March 2, 2023
Closing

WANDA only happens because of all of you

- We once again want to thank:
  - The program managers for their support, discussion, and clear overviews of their nuclear data needs and a special thanks to the members of the NDIAWG for their continued support of these efforts
  - The NDWG for their planning efforts
  - The session chairs for their expertise and organization in bringing together experts in our four topic areas and leading discussions on data needs
  - The speakers who also provided their expertise and knowledge
  - The FOA PIs and participants for sharing their projects' progress and showing the successes of WANDA
  - All of our attendees for their time and contributions to discussions, to provide input for the future of nuclear data

Big thanks to Bruce Pierson who did A TON of work and couldn't be here this year

[Almost] final feedback and discussion

- What did you like and/or dislike with WANDA 2023?
- What do you think about the venue?
- Format:
  - Starting on Monday?
  - No parallel sessions?

- Session topics:
  - How engaging were the topics this year?
  - What should we focus on next year?

Past Session Topic Suggestions

S/U Sessions
1. Sensitivity studies
2. “Truth in Covariances” and S/U analysis
3. Methods for propagating uncertainties
4. Covariances and errors in benchmark and data tuning
5. UQ/S capabilities development and methods
6. Benchmark/validation/propagation of uncertainties
7. Benchmarks and metadata
8. Uncertainty Quantification in Nuclear Data

Pipeline Sessions
1. Methods for cross section data library tuning
2. Turning ND pipeline into a Bayesian network
3. Future of nuclear data pipeline
4. Methods to speed up pipeline using (or not) advanced computing
5. Best practices/SQA
6. Ensure Utilization of new data in Application Code
7. What ND measurements, modelling, evaluation, compilation and other horizontal methods should look like in say 2040

Program Based Sessions
1. A focused topic for NE
2. FRIB needs
3. NRC could use more discussion
4. Space, medical and fusion applications
5. Versatile Test Reactor (VTR)
6. Nuclear data for decommissioning
7. Medical isotope nuclear data library

Other Sessions

1. Structural materials
2. Thermal scattering
3. Processing codes and formatting
4. Disentangling Multiphysics models/data
5. Shielding - Elastic and inelastic scattering as it pertains to shielding - Validation for shielding
6. Scattering: elastic and inelastic
7. Theory
8. Materials and targetry
9. Follow-up of Atomic Data session
10. Processing big data sets
11. Gaps in facilities and infrastructure
12. Code development: processing, evaluation, transport
13. The production of a charged-particle reaction library to 200+ MeV/amu and how to validate
14. Direct measurements of radioisotope targets
15. Gamma production
16. The transition from resonant to continuous treatments of nuclear data
17. Data needs synergies
18. ENDF 9.0
19. Catch-all/Miscellaneous/Stand-alone talks

Session Topic Suggestions from WANDA2022

- more on space applications
- short-lived isotopes
- Nuclear data for radiation damage metrics
- Importance and treatment of cross-reaction channel correlations
- Derivation of uncertainty in experimental data measurements
- Determination of uncertainty in calculated cross sections
- Nuclear data needs to enable new neutron detection capabilities/systems
- New nuclear data opportunities and needs arising from FRIB coming online
- Nuclear decay data continues to be a point of concern for Nuclear Forensics
- Spontaneous fission yields (SFY), including data for Pu240 and Cm isotopes.
- The integration of fission yield inventories calculations for SFY into SCALE/ORIGEN.
- Fusion
- Walkthrough of past workshop recommendations and assessment of progress (this might require more homework ahead of WANDA - but workshop attendees could discuss what still needs to be done to close or if open recs are still needed)
- Maybe something more in depth on medical (how to ""do"" nuclear data with biology - cancer treatments, etc). A lot of good discussions during WANDA22 during stopping power session and presentation from NIH"
- neutron capture
- Nuclear data for medical applications (production, dosimetry, etc.). Focus on alpha emitters.
- FRIB needs,
- Uncertainty Quantification
- Recent data updates and the downstream effect on applications
- Data of importance for safeguards measurements
- "The Future of Nuclear Data Processing" would make a great session and is long overdue.

Wrapping up WANDA 2023 and looking ahead to WANDA 2024

- WANDA 2023
  - Session chairs need to send their reports (thanks to the rapporteurs who took detailed notes during the session) March 10, 2023
  - Bruce and Amy will then write the final report
  - **Survey is coming for your feedback**
    - **you will be able to suggest topics and a chair for that topic**
- WANDA 2024
  - We intend to keep this time for WANDA! See you in DC next year!
    - **Does the week of February 26, or March 4 work better?**
  - NDWG will elect a new WANDA chair. Send Cathy your suggestions.
    - **Catherine.e.romano@aero.org**

Thank you for making WANDA a success!

Program Managers:
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Rapporteurs:
Isabel Hernandez
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Stefania Dede

And all speakers, attendees, and participants!
It is integral to bring together data funders, producers, evaluators, users, preservers, processors, and validators to identify cross-cutting needs.
WANDA would not be possible without you!

Questions, comments, or suggestions?

Contact any of us:

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