The JEFF-4.0 nuclear data library

The Joint Evaluated Fission and Fusion nuclear data library, version 4.0

Arjan Plompen on behalf of the JEFF collaboration

ND-2025, the 16th Int. Conf. on Nuclear Data for Science and Technology
Madrid, 23 June 2025

European Commission

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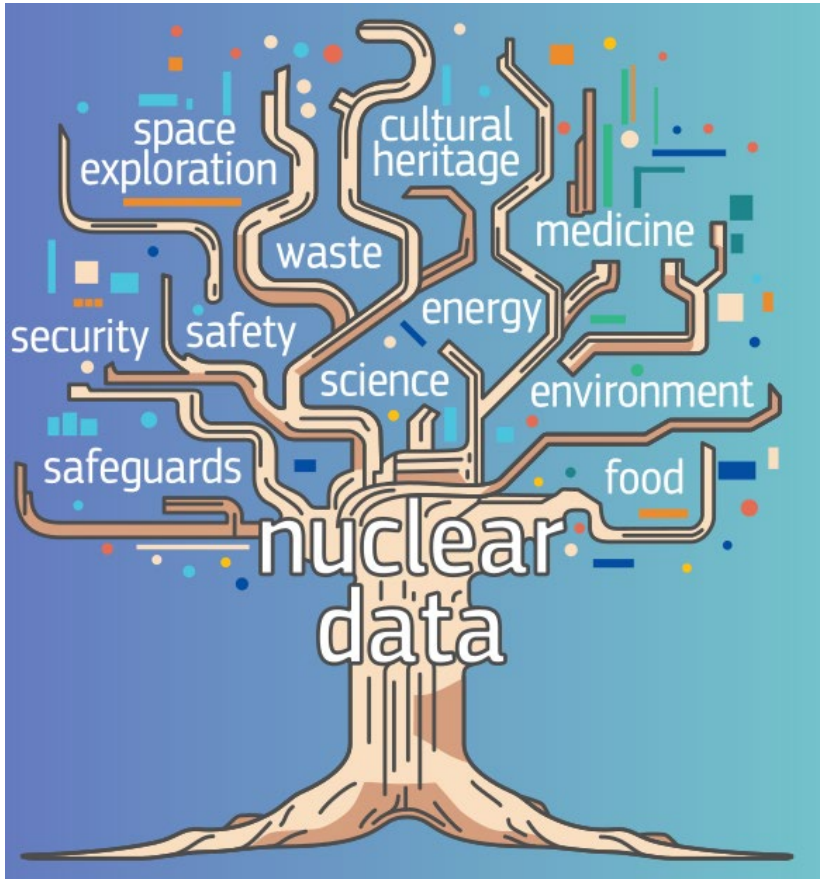

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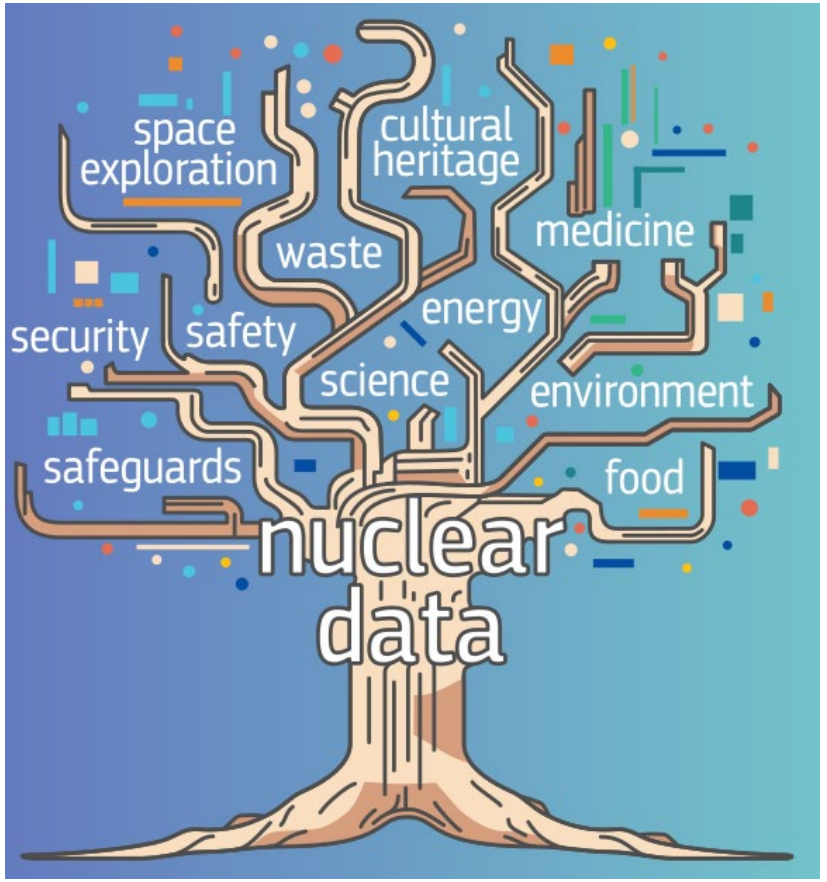
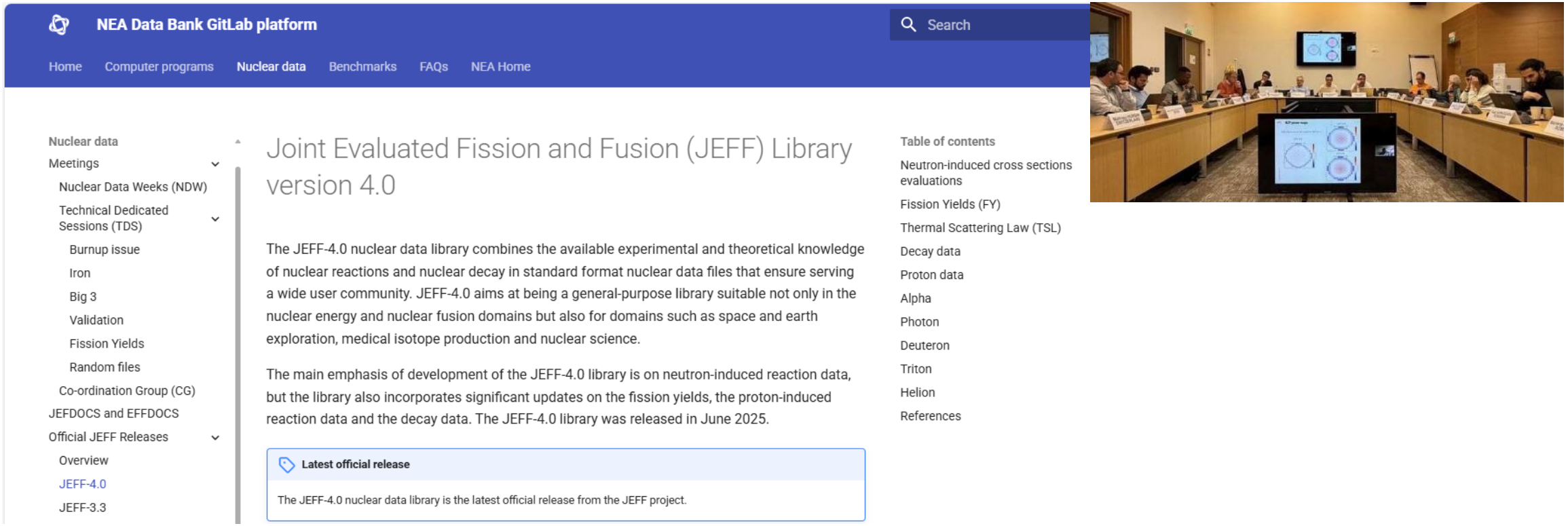
Objectives of JEFF-4.0

- General purpose file
- Improvements over JEFF-3.3
  - Light water reactors: burnup, inventory, power map…
  - Advanced reactors (smr/amr; Pb/Bi, Na)
  - Broader scope of benchmarking
  - Better quality assurance
    - Methods
    - Development platform
    - Faster return of feedback



JEFF-4.0 release – 20 June 2025



- https://databank.io.oecd-nea.org/data/jeff/40/

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JEFF-4.0 library contents

Neutron-induced reaction cross sections

Transport subset 593 files

Full set 2855 files

Fission yields sub-library

JEFF-3.3

New n_{th} + $^{233,235}U$, $^{239,241}Pu$

Thermal scattering law sub-library

132 files covering

24 elements &

60 compounds

Decay data

JEFF-3.3 with

- New TAGS data for 8 radionuclides
- Corrected files for 2 radionuclides

Proton-induced reaction cross sections

Transport subset 288 files

Full set 2855 files

g, d, t, h, a-induced reaction cross sections

g: 2825 files TENDL-2023

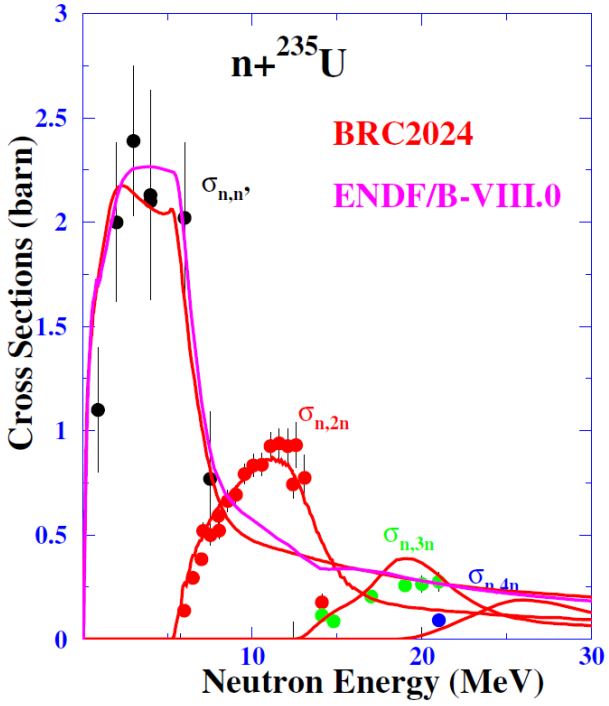
d: 2850 files h: 2821 files

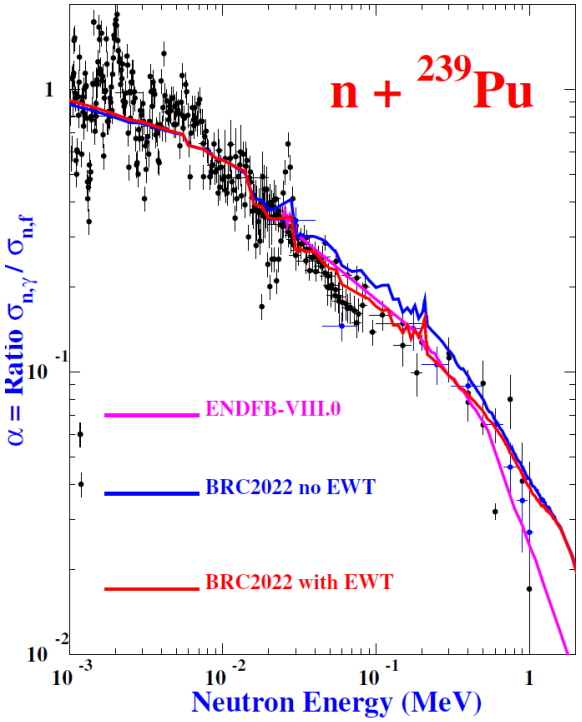
t: 2865 files a: 2835 files

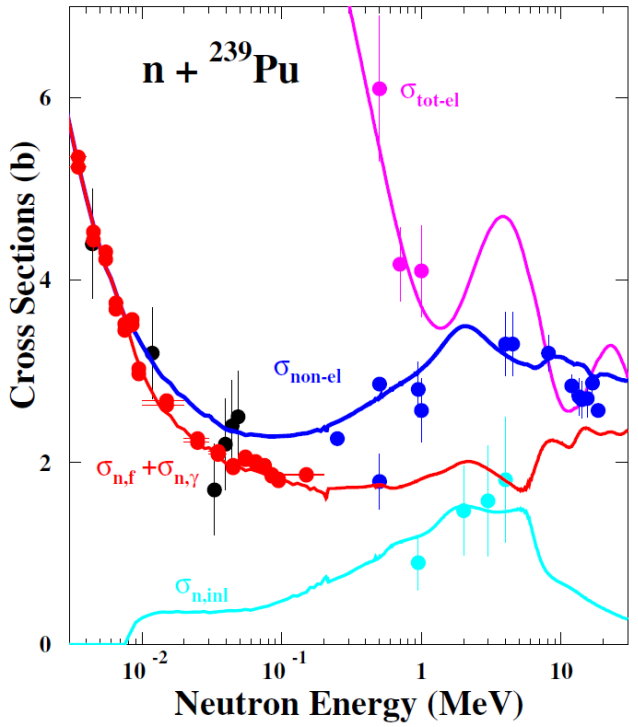
Neutron-induced cross sections

- New major actinides ^{235,238}U, ^{239}Pu
  - Resolved resonance region
  - Fast and Unresolved resonance region (new models)
- New minor actinides ^{236}U, ^{237,238}Np, ^{238,240,241,242}Pu, ^{241,243}Am, ^{244,246}Cm
- New ^{12}C,^{16}O, ^{155,156,158,160}Gd;
- Modifications ^{209}Bi, ^{234}U, ^{239}Np(jl5), ^{176,178}Hf, ^{237}U(j33); DN 8 groups; gamma-emission
- TENDL-2023 (August 2024 & February 2025 updates)
  - 2855 files
  - Removal of legacy (single-purpose) JEFF-3.3 files in favour of TENDL
  - Fission product updates via TENDL to make it work
- INDEN ^{10,11}B, ^{18}O, ^{19}F, ^{28,29,30}Si, ^{50,52,53,54}Cr, ^{55}Mn, ^{54,56,57}Fe, ^{59}Co, ^{63,65}Cu, ^{232}Th, ^{233}U
- JENDL-5 ^{1}H, ^{113,115}In, ^{232}Pa, ^{232}U, $^{235,236.239}$Np, ^{236}Pu, ^{242g,242m,244g,244m}Am, $^{249\text{-}254}$Cf, $^{253\text{-}255}$Es & ^{255}Fm
- ENDF/B-VIII.0 ^{4}He, ^{6,7}Li, ^{13}C, ^{180,182,183,184,186}W; ENDF/B-IX-beta1: ^{181}Ta
- JEFF-3.3: ^{2,3}H, ^{3}He, ^{9}Be, ^{14,15}N, ^{23}Na, ^{35,37}Cl, ^{174,177,179,180}Hf,^{197}Au, ^{206,207,208}Pb, ^{231,233}Pa, $^{240-250}$Cm, ^{247,249,250}Bk

^{235}U, ^{239}Pu fast range evaluations





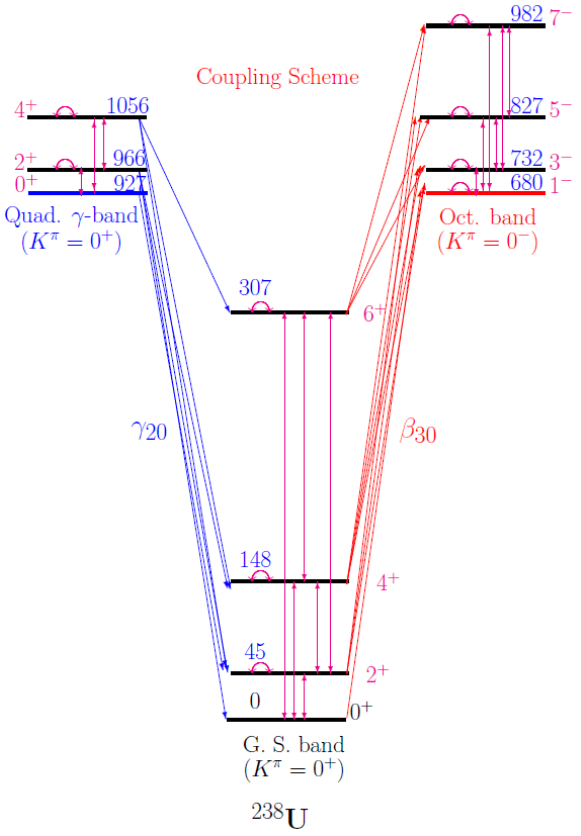


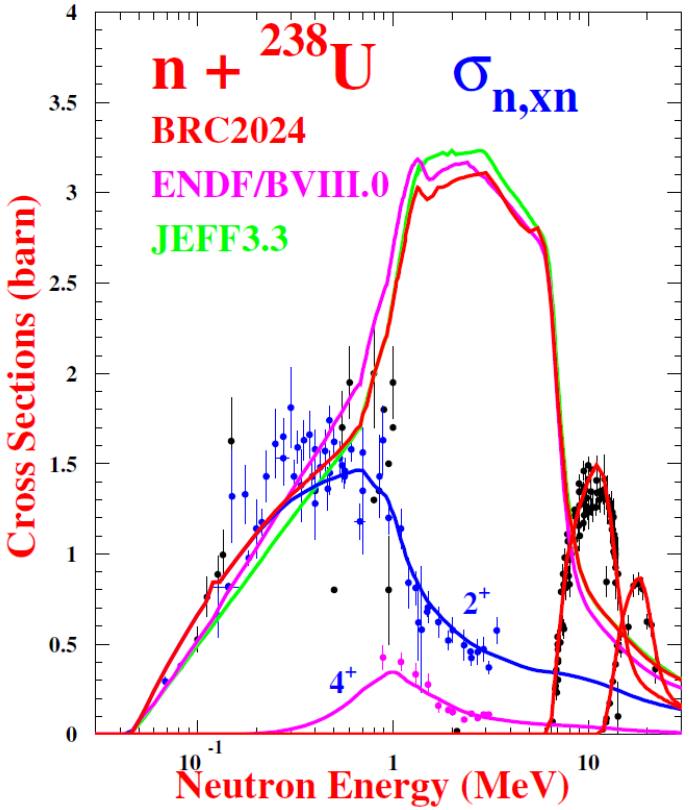
P. Romain et al., jefdoc-2187, 2252

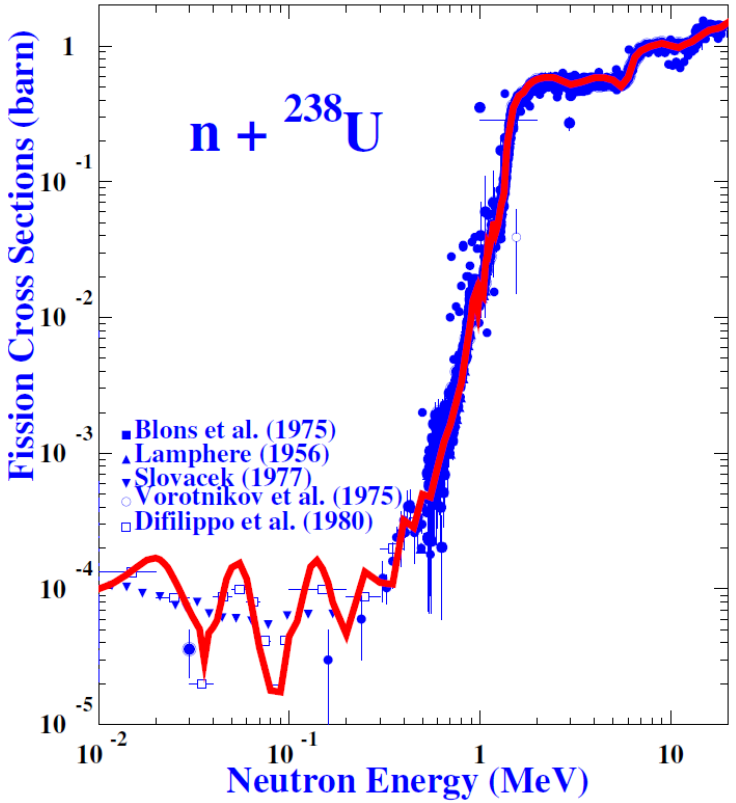
^{235}U, ^{239}Pu:

- Engelbrecht - Weidenmüller transformation
- new nubar evaluation
- QRPA strength function (adjusted for ^{235}U)
- PESSA'H coupled channels code
- Talys-1.91

^{238}U fast range evaluation







P. Romain et al., jefdoc-2290

^{238}U:

- Engelbrecht - Weidenmüller transformation
- new nubar evaluation
- QRPA strength function, adjusted
- PESSA'H coupled channels code
- Talys-1.91

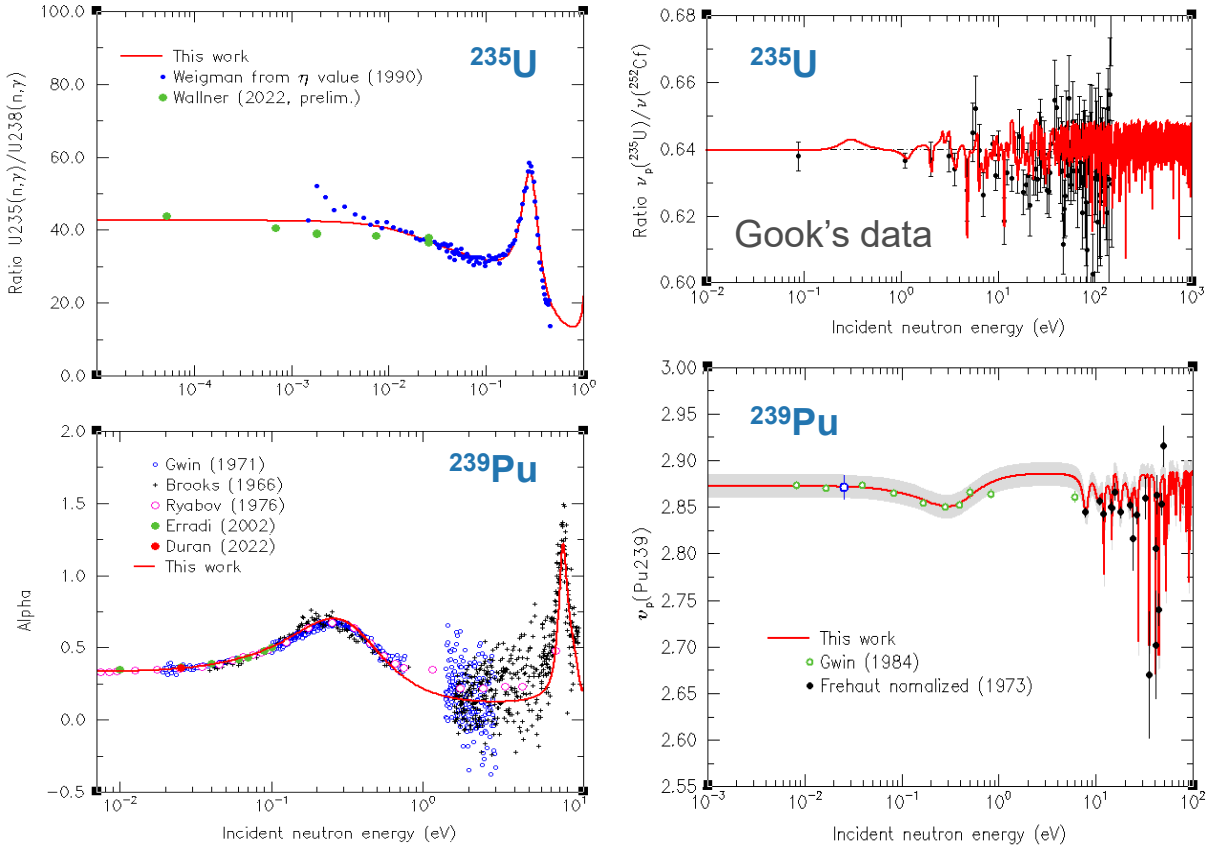
Major actinide evaluations in the RRR

New ^{235}U and ^{239}Pu evaluations by using EXFOR data:

- ^{235}U $\Rightarrow$ 40 data sets (1966-2022)
- ^{239}Pu $\Rightarrow$ 50 data sets (1951-2014)
- Thermal neutron constants from the next nuclear data standards evaluation
- Use two-step (n,γf) reaction for prompt neutron multiplicity

Correction ^{238}U for improving PWR reactivity as a function of burnup

- M. Hursin (EPFL) & S. Kopecky (JRC)



G. Noguere 19 June 2025 & jefdocs

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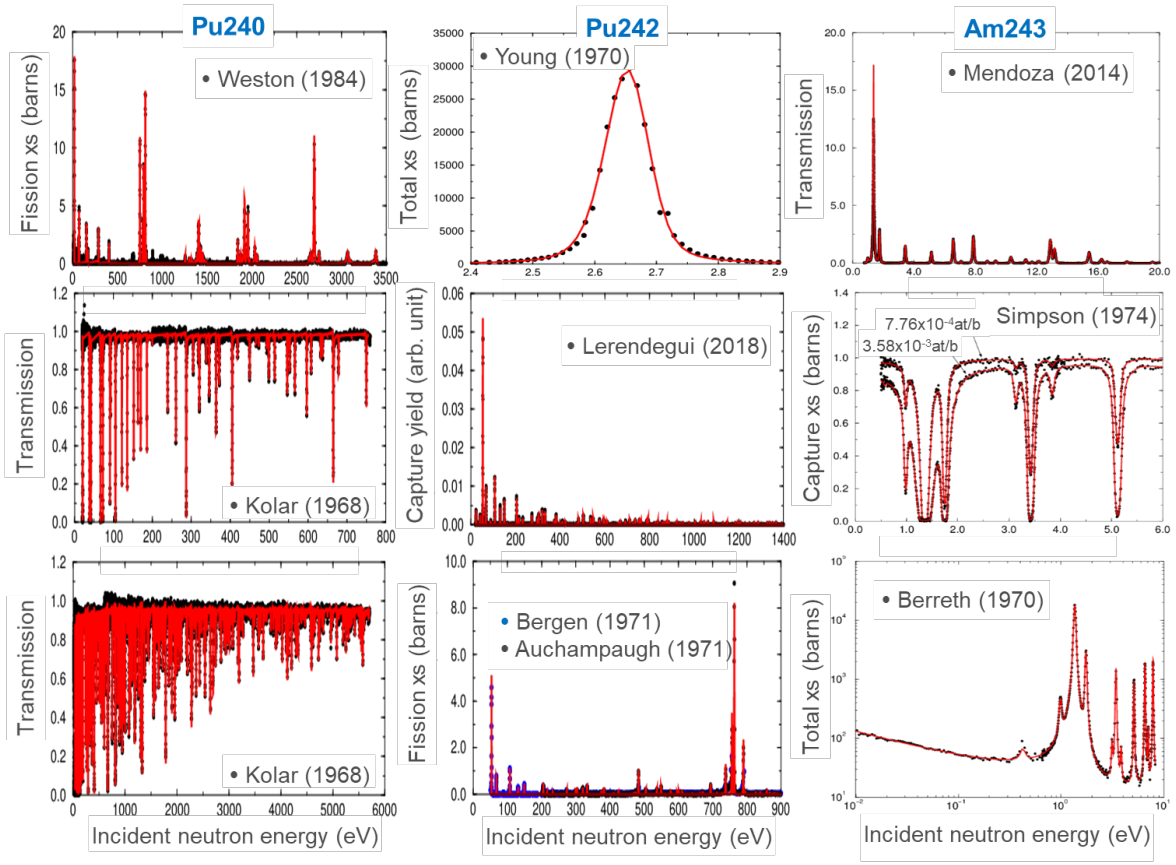
Minor actinide evaluations in the RRR

- Minor actinide evaluations with CONRAD for improving ^{238}Pu and ^{244}Cm production in PWR by using EXFOR, GELINA and n_TOF data for
  - ^{236}U, ^{237}Np, ^{240}Pu, ^{241}Pu, ^{242}Pu, ^{238}Pu, ^{241}Am, ^{243}Am

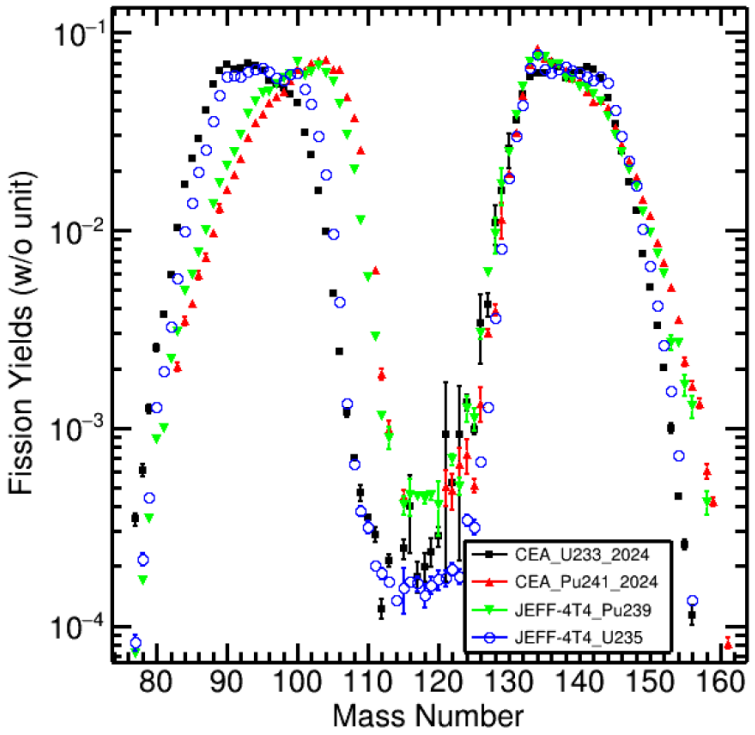


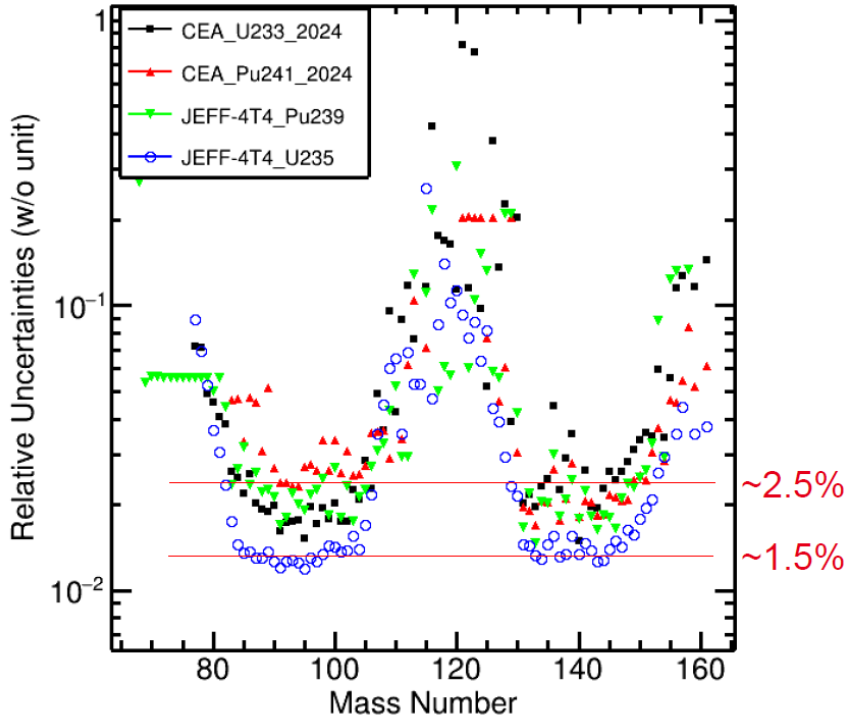
G. Noguere 19 June 2025 & jefdocs

Fission product yields sub-library

JEFF-3.3 with

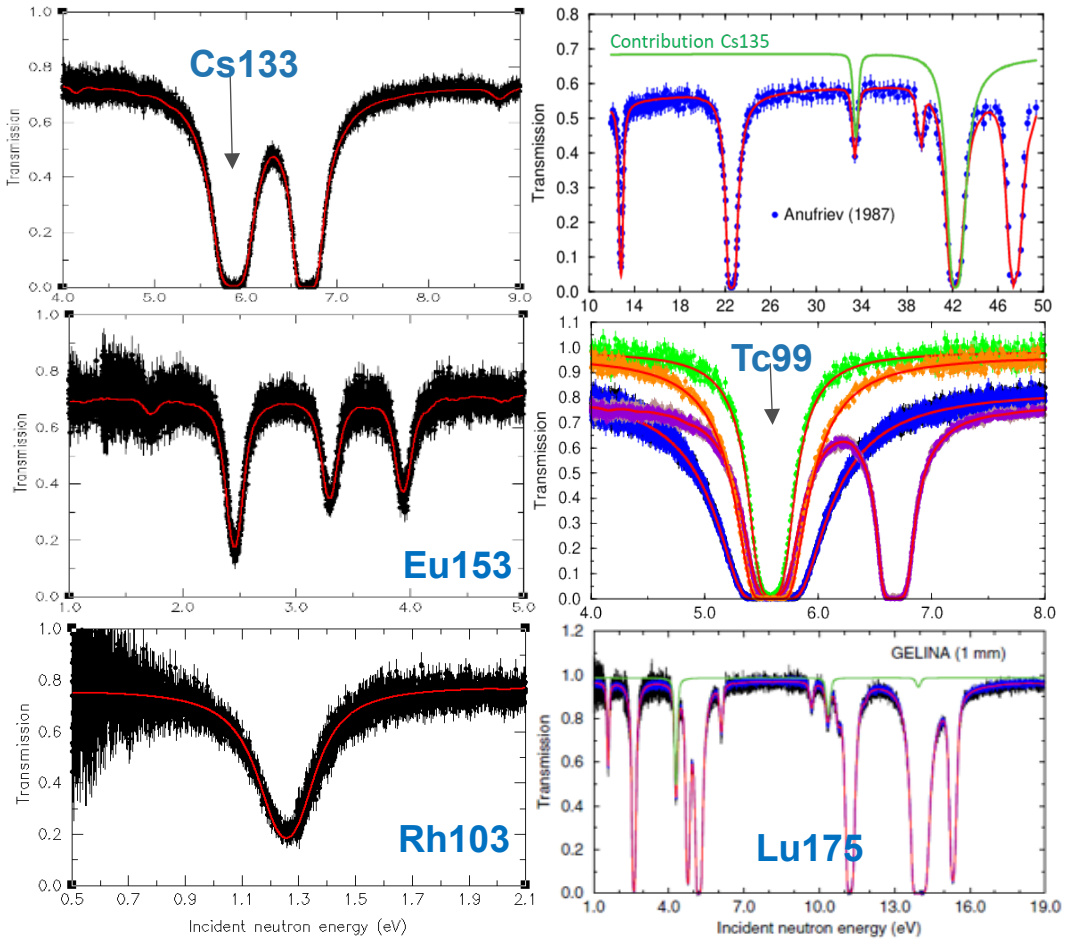
- New n_{th} + ^{235}U, ^{239}Pu and ^{233}U, ^{241}Pu
- New methodology
- Careful use of all experimental data and new Lohengrin data
- G. Kessedjian et al., jefdoc-2416, April 2025





Fission product evaluations

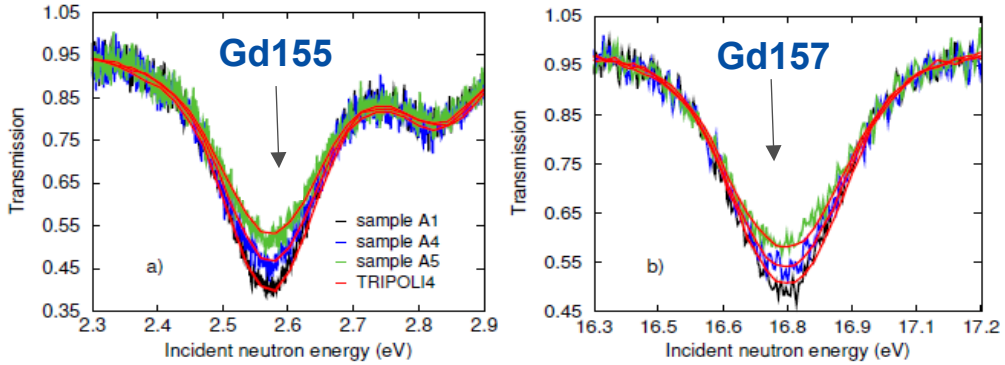
G. Noguere 19 June 2025 & jefdocs



Evaluation/validation with transmission performed at the GELINA facility (for Credit Burnup, réactivity …):
Ag, Gd, Sm149, Sm147, Nd143, Nd145, Gd155, Eu153, Rh103, Tc99, Ag109, Cs133, Mu175, Xe, Sm, Ag, Gd …

Corrections (RRR, URR, isomeric ratio) :
Rh105, Cs135, Lu176, Lu173, Pd105, Pd106, Pd108, Te127m, Xe135, Pm147, Pm148, Pm148m, Pm149, Eu151, Eu154, Eu155, Gd153, Mo100, Sm150, Sm151, Sm152, Ru101, …

Use n_TOF results:
La139, Tm171, Os186, Os187, Os188



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Thermal scattering law sub-library

- JEFF-3.3 with
  - 16 new files
  - 6 modified files
  - New H in H2O file
  - ESS and ENDF contributions
- Total of 132 files for 84 materials
  - 24 elements
  - 60 compounds
- G. Noguere et al., jefdoc-2420; I. Marquez Damian jefdoc-2418 , April 2025

JEFF4T5

```
tsl_4-Be.txt
tsl_83-Bi.txt
tsl_Al_Al2O3.txt
tsl_Ca_CaH2.txt
tsl_C_C5O2H8.txt
tsl_C_C8H8.txt
tsl_C_CH2.txt
tsl_D_D2O.txt
tsl_Graphite.txt
tsl_H_C5O2H8.txt
tsl_H_C8H8.txt
tsl_H_CaH2.txt
tsl_H_CH2.txt
tsl_H_H2O.txt
tsl_H_HF.txt
tsl_H_Ice.txt
tsl_H_ZrH15.txt
tsl_H_ZrH2.txt
tsl_H_ZrH.txt
tsl_Mesi-PhII.txt
tsl_Mg.txt
tsl_O_Al2O3.txt
tsl_O_C5O2H8.txt
tsl_O_D2O.txt
tsl_Ortho-D.txt
tsl_Ortho-H.txt
tsl_Para-D.txt
tsl_Para-H.txt
tsl_Si.txt
tsl_Tolue-PhII.txt
tsl_Zr_ZrH15.txt
tsl_Zr_ZrH2.txt
tsl_Zy4
tsl_ThO2
tsl_UO2
tsl_PuO2
```

ESS

```
tsl_Ag_sg225_Silver.ess
tsl_Al_sg225_Aluminum.ess
tsl_Au_sg225_Gold.ess
tsl_Ca_sg225_Calcium.ess
tsl_Ca_CaH2_sg62_CalciumHydride.ess
tsl_H_CaH2_sg62_CalciumHydride.ess
tsl_Ca_CaOH2_sg164_CalciumHydroxide.ess
tsl_H_CaOH2_sg164_CalciumHydroxide.ess
tsl_O_CaOH2_sg164_CalciumHydroxide.ess
tsl_C_C-diamond_sg227_Diamond.ess
tsl_Cr_sg229_Chromium.ess
tsl_Cu_sg225_Copper.ess
tsl_Fe_Fe-alpha_sg229_AlphaIron.ess
tsl_Fe_Fe-gamma_sg225_GammaIron.ess
tsl_Ga_GaN_sg186_GalliumNitride.ess
tsl_N_GaN_sg186_GalliumNitride.ess
tsl_Ga_GaSe_sg194_GalliumSelenide.ess
tsl_Se_GaSe_sg194_GalliumSelenide.ess
tsl_Ge_sg227_Germanium.ess
tsl_Bi_Ge3Bi4O12_sg220_BismuthGermanate.ess
tsl_Ge_Ge3Bi4O12_sg220_BismuthGermanate.ess
tsl_O_Ge3Bi4O12_sg220_BismuthGermanate.ess
tsl_Ge_GeTe_sg160_GermaniumTelluride.ess
tsl_Te_GeTe_sg160_GermaniumTelluride.ess
tsl_K_sg229_Potassium.ess
tsl_H_KOH_sg4_PotassiumHydroxide.ess
tsl_K_KOH_sg4_PotassiumHydroxide.ess
tsl_O_KOH_sg4_PotassiumHydroxide.ess
tsl_F_LiF_sg225_LithiumFlouride.ess
tsl_Li_LiF_sg225_LithiumFlouride.ess
tsl_H_LiH_sg225_LithiumHydride.ess
tsl_Li_LiH_sg225_LithiumHydride.ess
tsl_D_MgD2_sg136_MagnesiumDeuteride.ess
tsl_Mg_MgD2_sg136_MagnesiumDeuteride.ess
tsl_H_MgH2_sg136_MagnesiumHydride.ess
tsl_Mg_MgH2_sg136_MagnesiumHydride.ess
tsl_H_MgOH2_sg164_MagnesiumHydroxide.ess
tsl_Mg_MgOH2_sg164_MagnesiumHydroxide.ess
tsl_O_MgOH2_sg164_MagnesiumHydroxide.ess
tsl_Mo_sg229_Molybdenum.ess
tsl_Na_sg229_Sodium.ess
tsl_I_NaI_sg225_SodiumIodide.ess
tsl_Na_NaI_sg225_SodiumIodide.ess
tsl_H_NaMgH3_sg62_SodiumMagnesiumHydride.ess
tsl_Mg_NaMgH3_sg62_SodiumMagnesiumHydride.ess
tsl_Na_NaMgH3_sg62_SodiumMagnesiumHydride.ess
tsl_H_NaOH_sg63_SodiumHydroxide.ess
tsl_Na_NaOH_sg63_SodiumHydroxide.ess
tsl_O_NaOH_sg63_SodiumHydroxide.ess
tsl_Nb_sg229_Niobium.ess
tsl_Ni_sg225_Nickel.ess
tsl_Pb_sg225_Lead.ess
tsl_Pd_sg225_Palladium.ess
tsl_Pt_sg225_Platinum.ess
tsl_Sn_sg141_Tin.ess
tsl_H_SrH2_sg62_StrontiumHydride.ess
tsl_Sr_SrH2_sg62_StrontiumHydride.ess
tsl_Ti_sg194_Titanium.ess
tsl_V_sg229_Vanadium.ess
tsl_W_sg229_Tungsten.ess
tsl_Al_Y3Al5O12_sg230_YttriumAluminiumGarnet.ess
tsl_O_Y3Al5O12_sg230_YttriumAluminiumGarnet.ess
tsl_Y_Y3Al5O12_sg230_YttriumAluminiumGarnet.ess
tsl_Zn_sg194_Zinc.ess
tsl_S_ZnS-sphalerite_sg216_ZincSulfide.ess
tsl_Zn_ZnS-sphalerite_sg216_ZincSulfide.ess
tsl_Zr_sg194_Zirconium.ess
...
```

ENDF\B-VIII.1

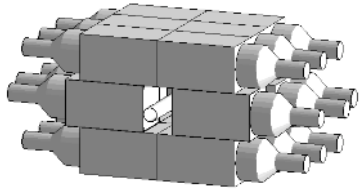
```
tsl_7Li_7LiD.b81
tsl_Be_Be2C.b81
tsl_Be_BeF2.b81
tsl_Be_BeO.b81
tsl_Be_FLiBe.b81
tsl_benzene.b81
tsl_C_Be2C.b81
tsl_C_CF2.b81
tsl_C_UC.b81
tsl_C_ZrC.b81
tsl_D_7LiD.b81
tsl_F_BeF2.b81
tsl_F_CF2.b81
tsl_F_FLiBe.b81
tsl_F_MgF2.b81
tsl_H_ParaffinicOil.b81
tsl_H_UH3.b81
tsl_H_YH2.b81
tsl_CH4-liquid.b81
tsl_Li_FLiBe.b81
tsl_Mg_MgF2.b81
tsl_Mg_MgO.b81
tsl_N_UN.b81
tsl_O_BeO.b81
tsl_O_MgO.b81
tsl_CH4-solid.b81
tsl_U_UC.b81
tsl_U_UN.b81
tsl_U.b81
tsl_Y_YH2.b81
tsl_Zr_ZrC.b81
...
```

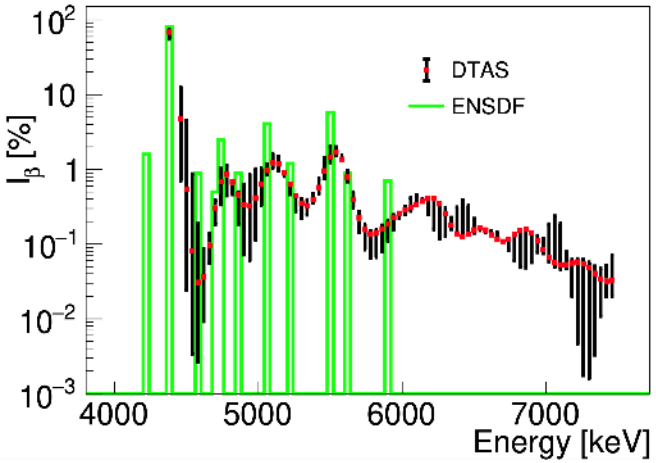
Decay data sub-library update

JEFF-3.3 sub-library with

- new TAGS data for 8 radionuclides
  - Rb-93, Y-96, Y-96m, Y-99, Tc-103, Tc-108, I-138, and Cs-142
- Tc-99 Q-value update
- Am-242 EC/B- branching and decay radiation.

Jefdoc-2297 L. Giot and A. Algora, Nov 2023 (M. Kellett, X. Mougeot)





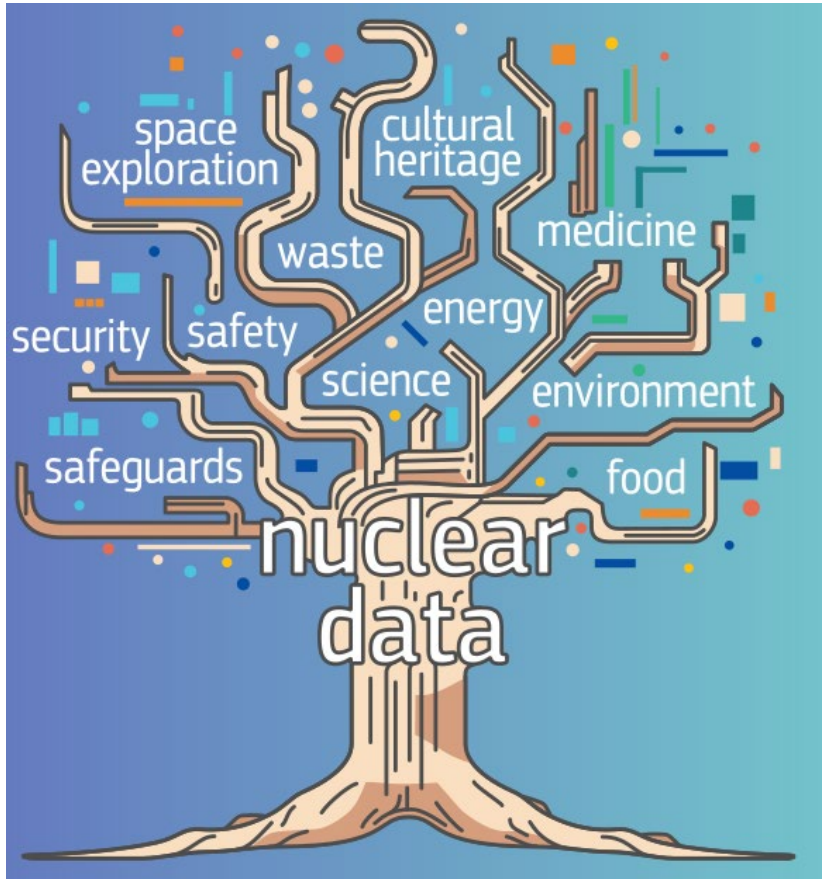
^{96m}Y beta decay feedings

New mean energies by the Valencia-Nantes-Jyväskylä Collaboration from TAGS

Parent Isotope	$\overline{E_\gamma}$	$\overline{E_\beta}$	e^- (E0)
142Cs	1540 (70)	2526 (32)	
99Y	1594 (39)	2375 (19)	
138I	2010 (100)	2495 (50)	
103Tc	256 (6)	980,5 (27)	
108Tc	3310 (28)	1938 (13)	
96Y	74 (8)	3183 (12)	29 (16)
96mY	4675 (17)	1718 (7)	16,7 (20)
93Rb	2430 (70)	2240 (70)	

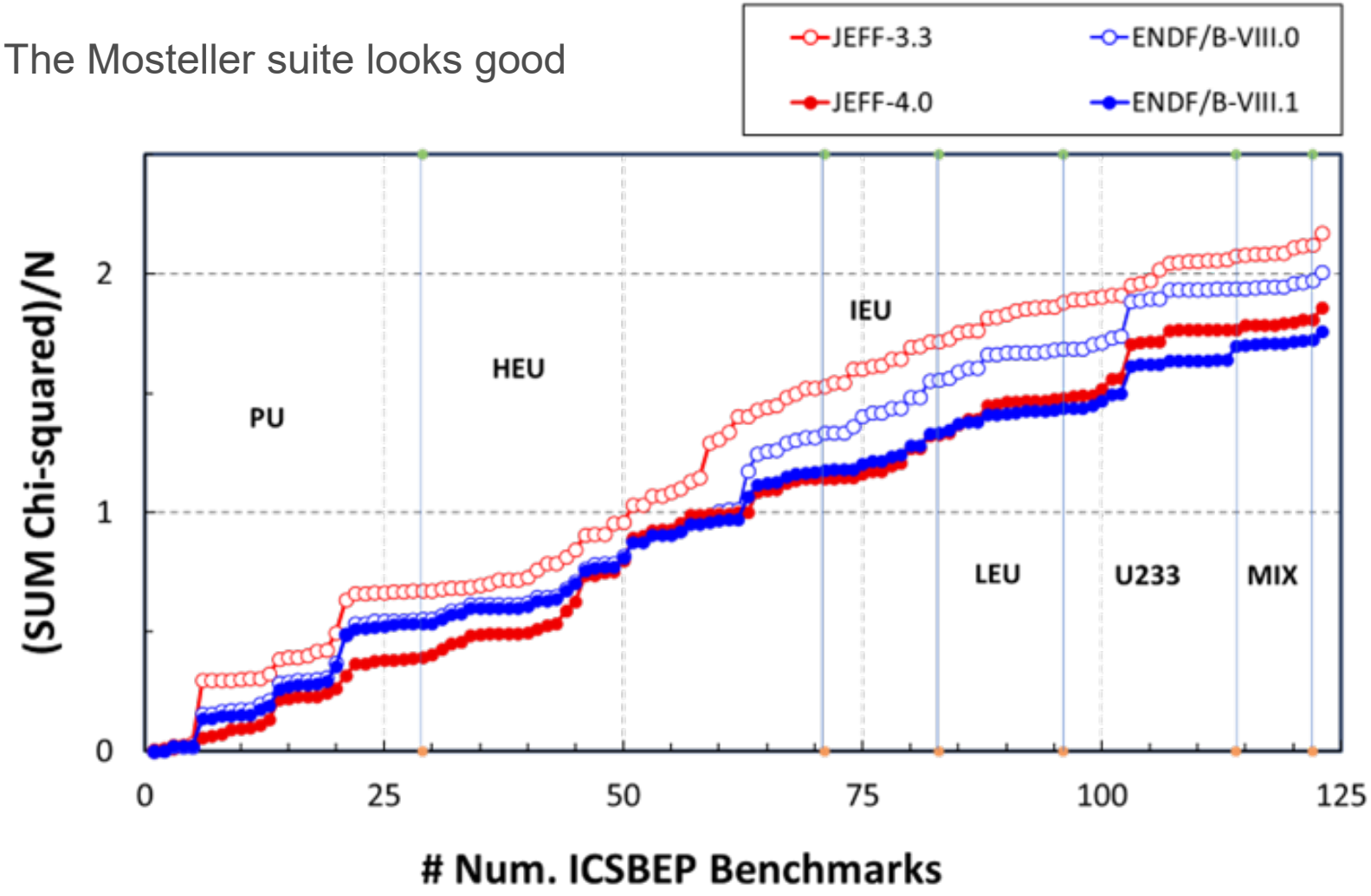
Benchmarking

- The Mosteller suite looks good
- Extended criticality benchmarking also looks good
- Selected IRPHE testing shows improvements
- Reactivity versus burnup finally in good shape
- Fission product updates improved inventory estimation
- Fission and fusion decay heat are good
- Power map improvement
- Shielding benchmarks good (Fe changed)
- Systematic comparison thermal CS, RI, MACS
- Turnaround time, breadth and depth are impressive
- And yes, there is room for improvement…



JEFF-4.0 testing and benchmarking

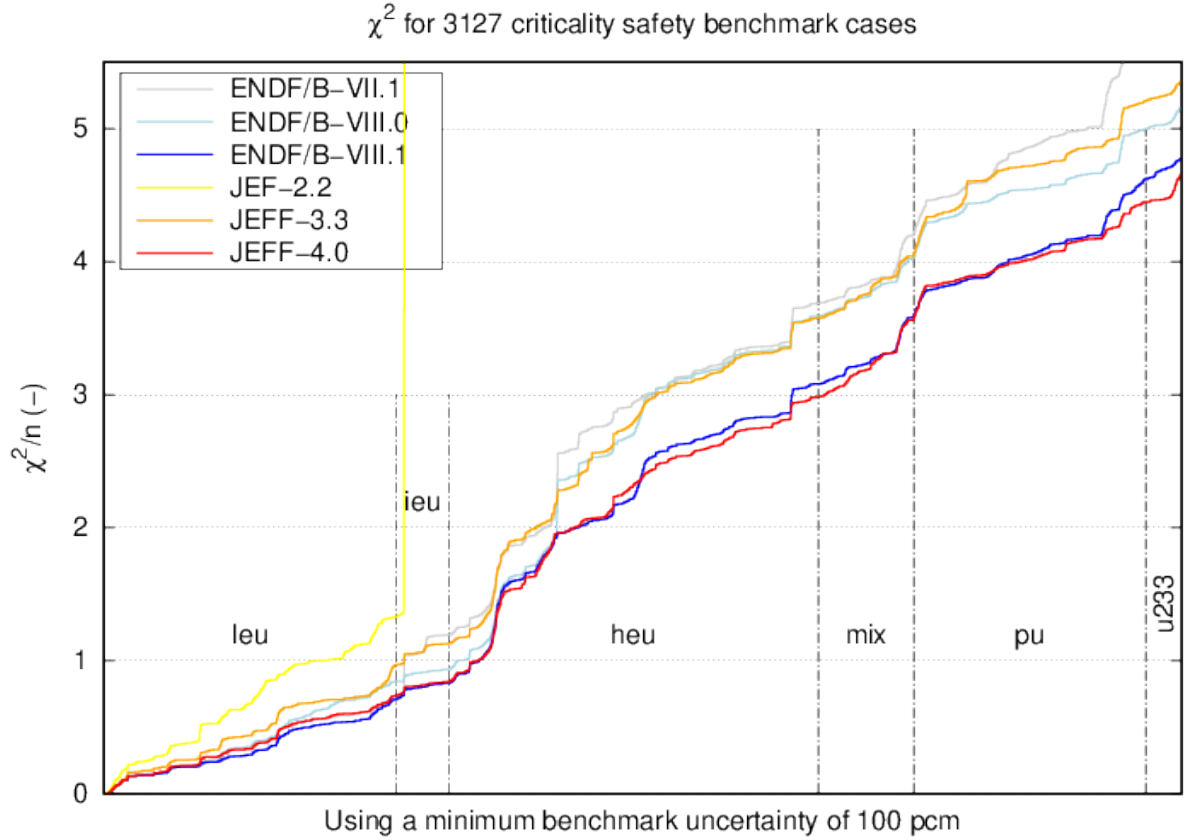
- The Mosteller suite looks good



O. Cabellos, *Feedbacks on Processing and Benchmarking for JEFF-4T5*, JEFDOC-2421; Latest update Wed 4 June 2025.
D. Rochman 28 May 2025; C. Jouanne Jefdoc-2424 & 5 June 2025.

JEFF-4.0 testing and benchmarking

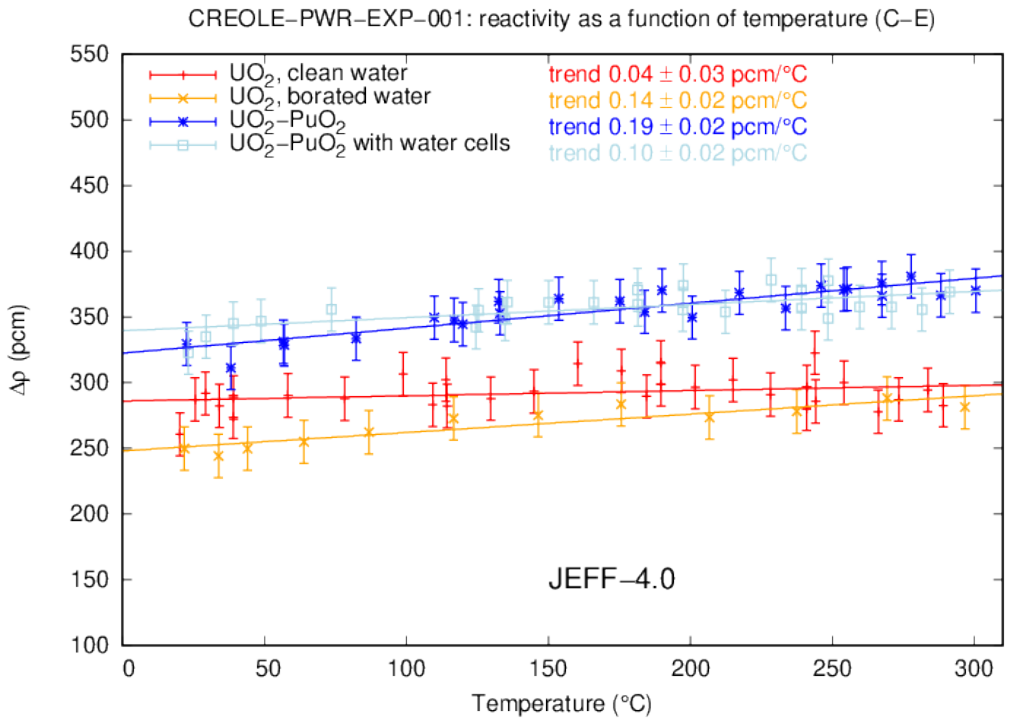
- Extended criticality benchmarking also looks good

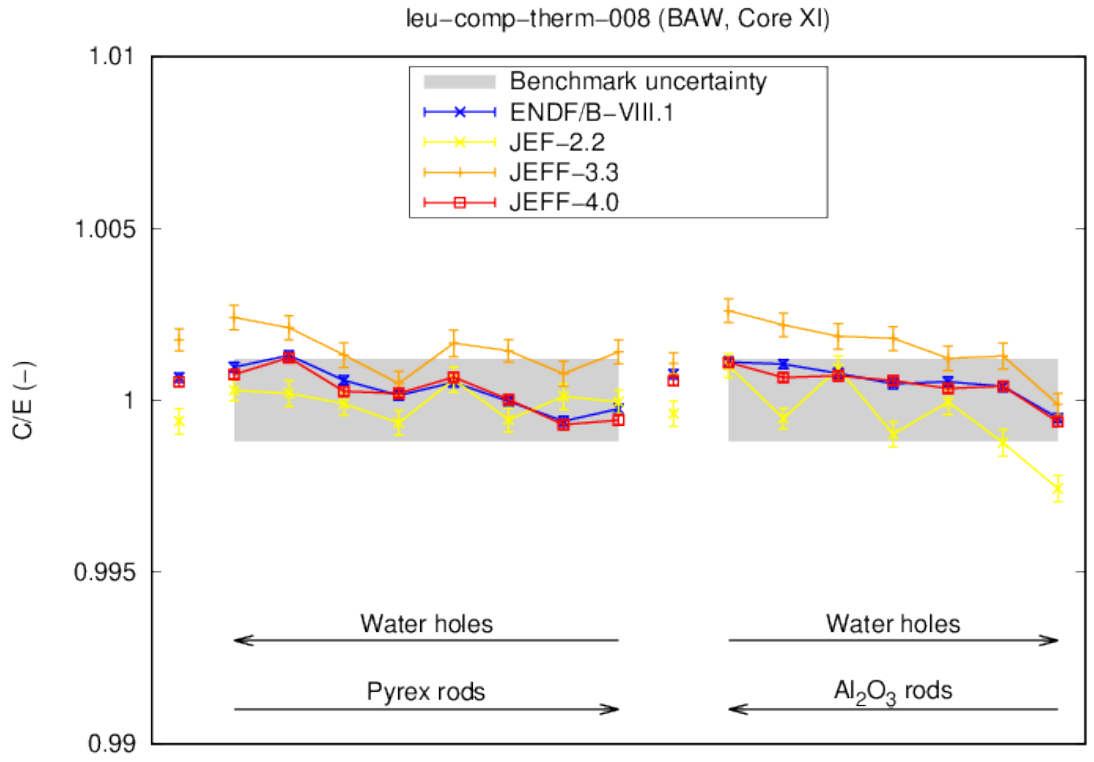


S. van der Marck, Jefdoc-2426, Update 13 June 2025

JEFF-4.0 testing and benchmarking

- Selected IRPHE testing shows improvements





Babcock & Wilcox experiments
S. van der Marck, 13 June 2025, Jefdoc-2426.

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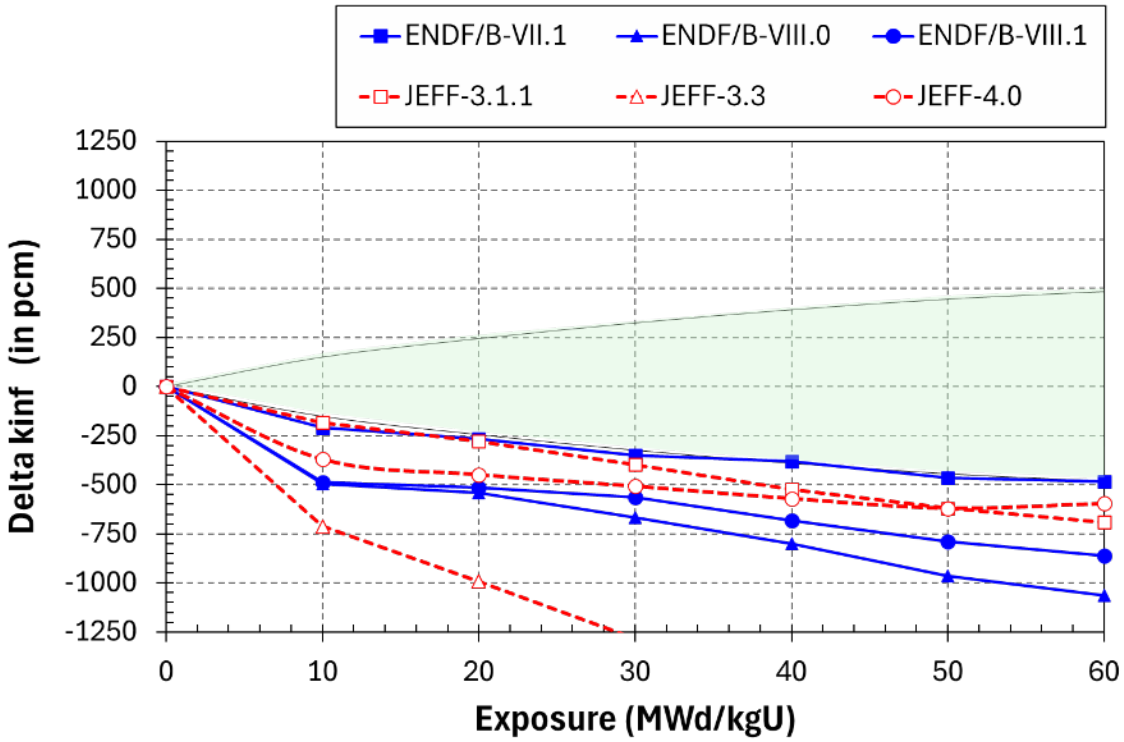
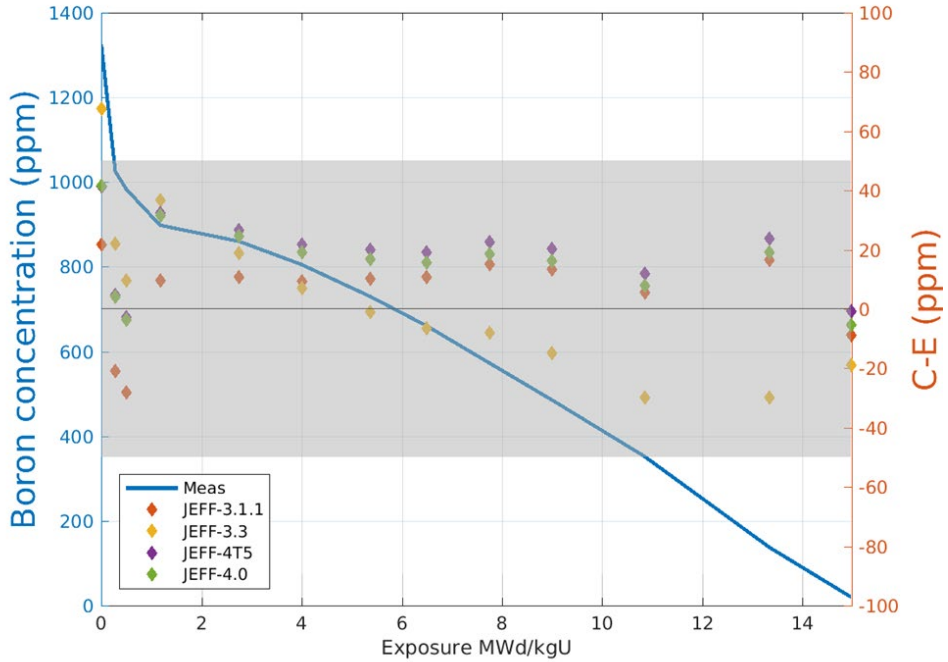
JEFF-4.0 testing and benchmarking

- Reactivity versus burnup finally in good shape



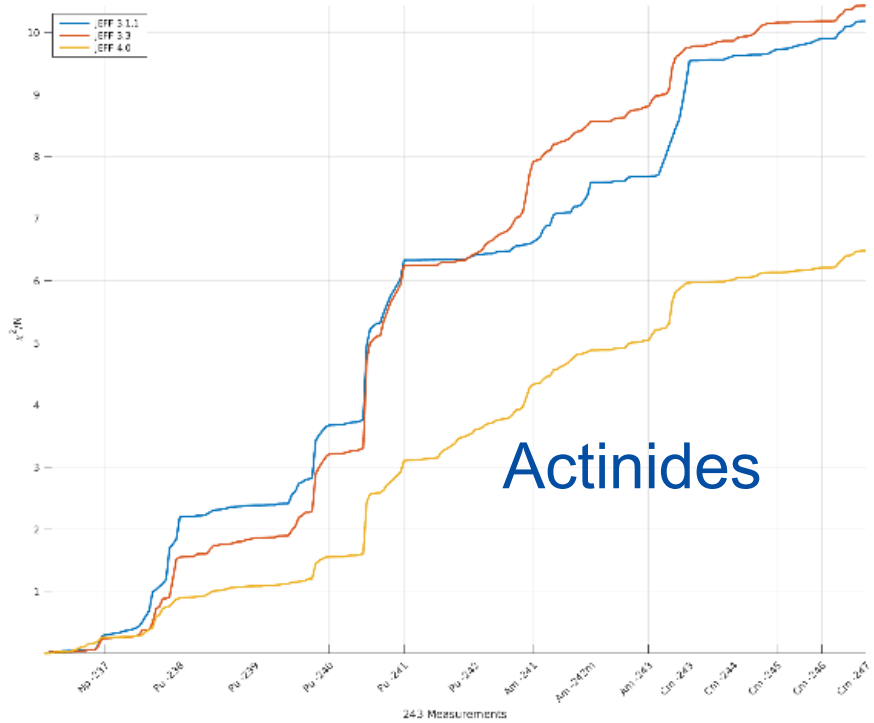
IRPHE Duke benchmark
O. Cabellos 31 May 2025, Jefdoc-2421 and S. van der Marck, Jefdoc-2426.

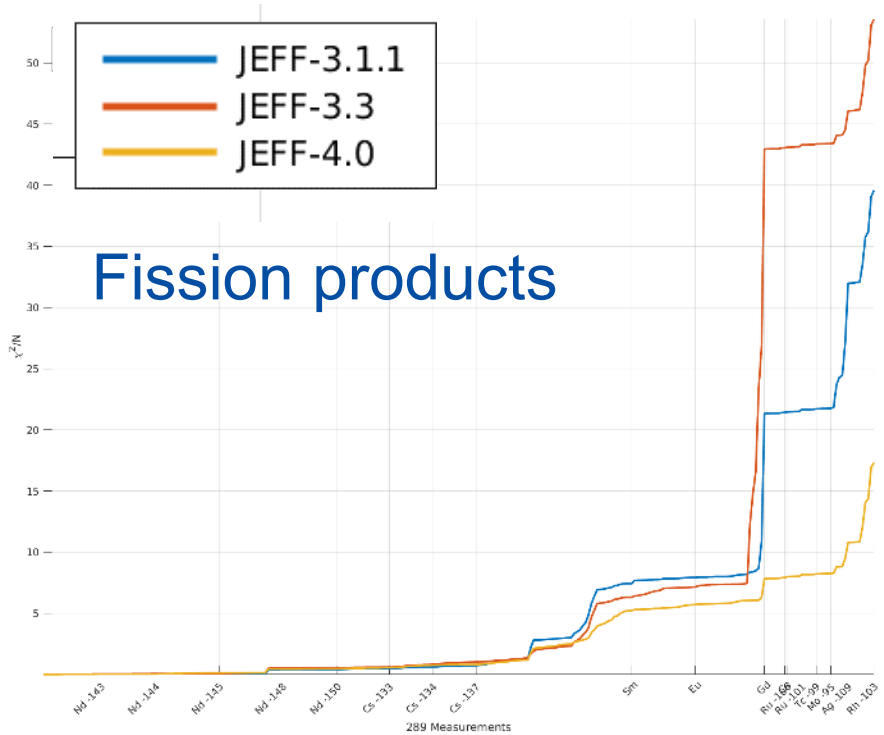


Boron let-down curve Fessenheim-1
M. Hursin, *Benchmarking of JEFF-4T5 with Dragon/PARCS*, JEFDOC-2425;
Similar results Almaraz cycles 1 & 2, Turkey Point cycles 1, 2 & 3 (6 June 2025)
See also O. Cabellos Jefdoc-2426 (Almaraz); P. Bryce Jefdoc-2435 - Sizewell, N. Schlosse Jefdoc-2437 – Doel, Tihange, S. Ravaux Jefdoc-2438 PWR/EPR

JEFF-4.0 testing and benchmarking

- Fission product updates improved inventory estimation (and also the actinides improved)





UOX and MOX inventories Gravelines, Cruas, Tricastin and St Laurent
C/E values V. Vallet and D. Bernard Jefdoc-2320
Estimates M. Hursin, *Dragon/PARCS*, Jefdoc-2425, update 6 June 2025

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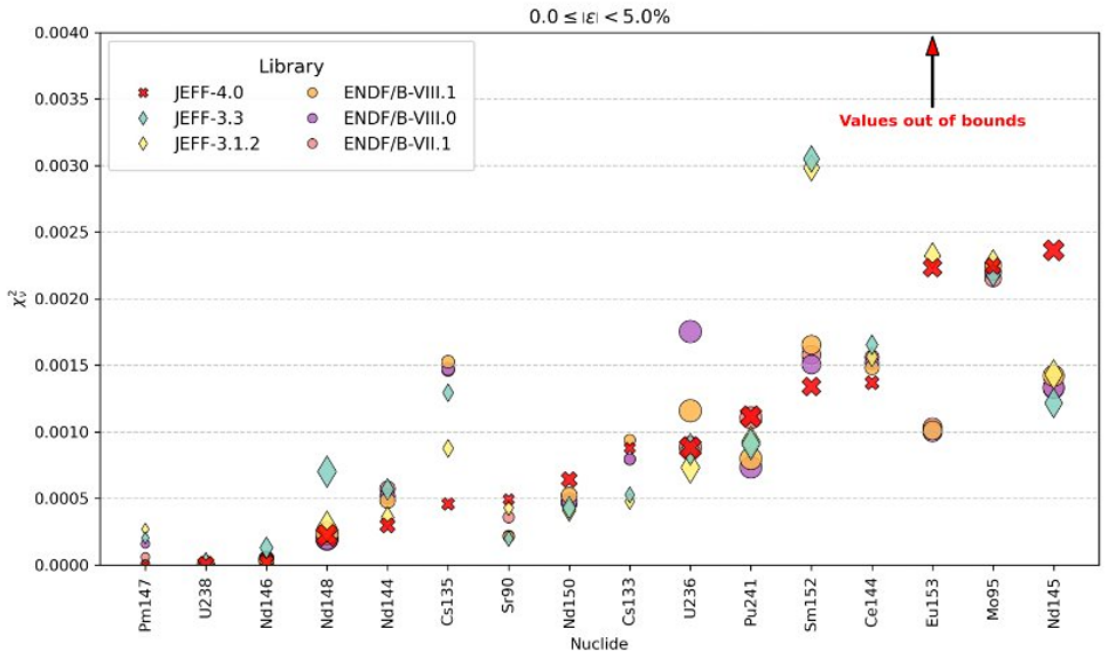
JEFF-4.0 testing and benchmarking

- Fission product updates improved inventory estimation

PIEs from SFCOMPO cases

Residue analysis (χ^2_ν)



Modelling with Serpent 2

Ref: P. Romojaro & L. Fiorito; SFCOMPO testing – largest deviations (Tue 3 June 2025), jefdoc 2408, 2257 & 2432;

24 PWR benchmarks:
Takahama SF95 (x 5)
TMI NJ05YU-H6 (x 11)
CC1 MKP109 (x 3)
TP3 D01 (x 3)
GKN-II (x 1, REBUS)
Beznau M308 (x 1)

✖ *Marker size proportional to the number of measurements*

Only residues < 5% are shown

$$\varepsilon^j_{i,k} = \left(\frac{C^j_{i,k}}{E_{i,k}} - 1\right)\% \qquad \begin{array}{l} i\text{–nuclide} \\ j\text{–library} \\ k\text{ - case} \end{array}$$

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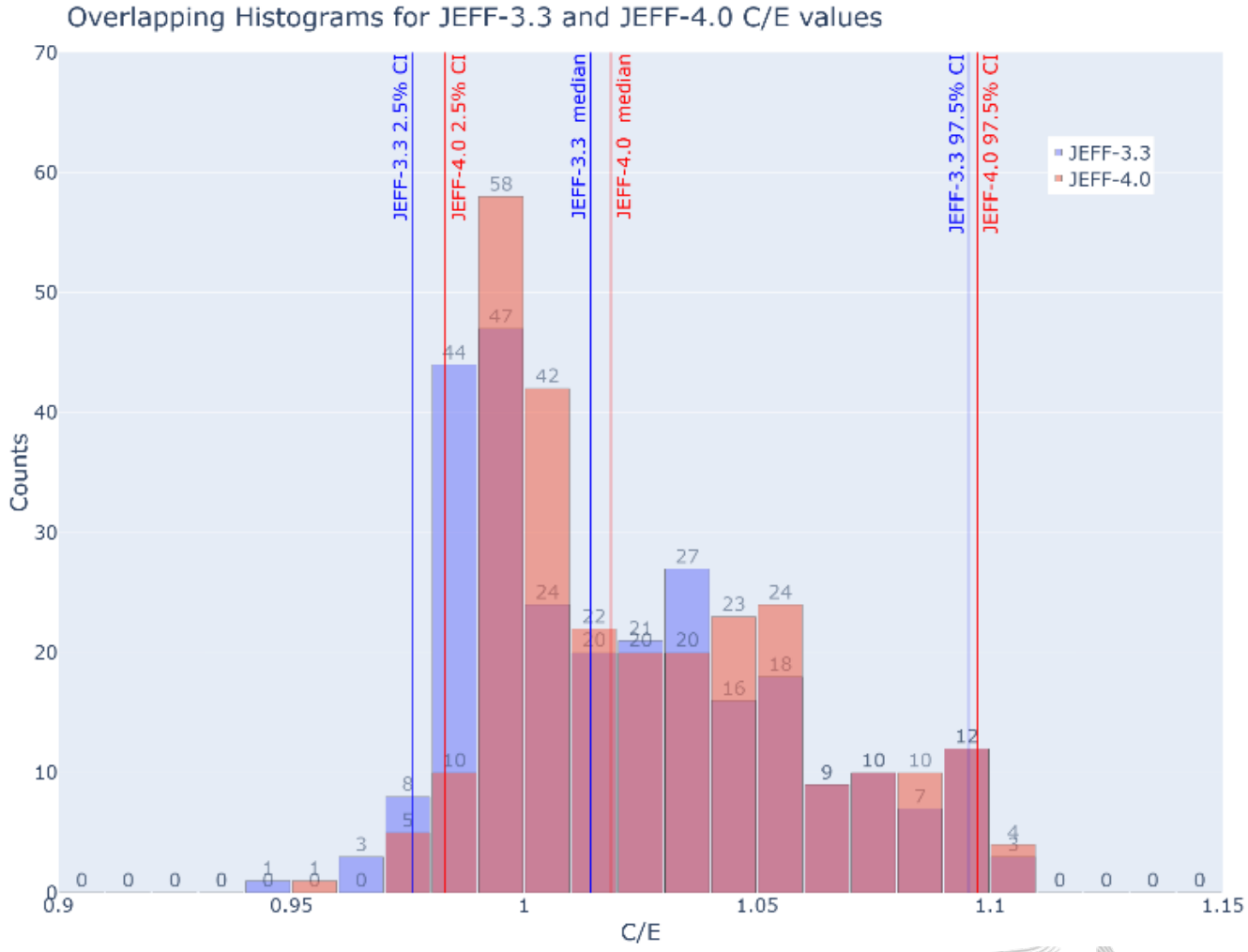
JEFF-4.0 testing and benchmarking

- Fission decay heat looks good

library	median
JEFF-3.3	1.014
JEFF-4.0	1.019

S. Portolan, PSI, ND2025, EPRI/SKB Decay heat benchmark
270 PWR and BWR fuel assembly calorimetric data



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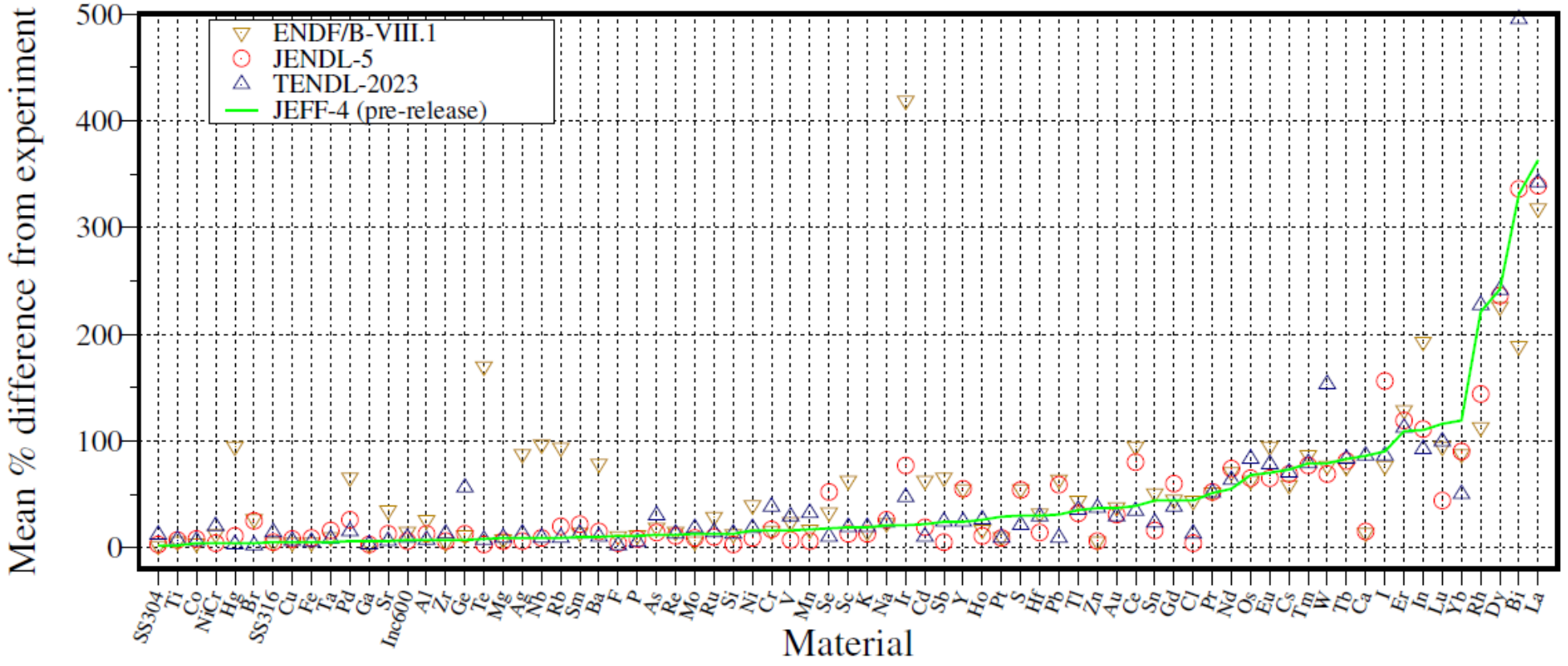
JEFF-4.0 testing and benchmarking

- Fusion decay heat looks good

J. Hollis, *FNS decay heat benchmarking for JEFF-4.0*, JEFDOC-2434.



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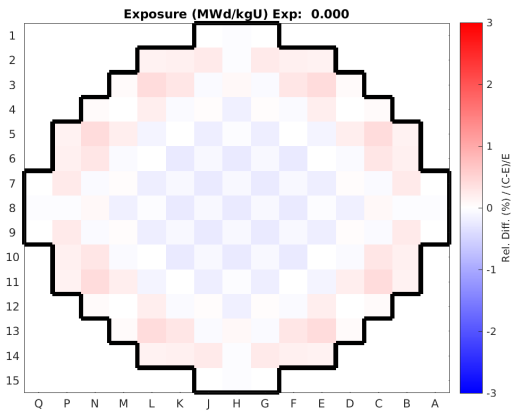
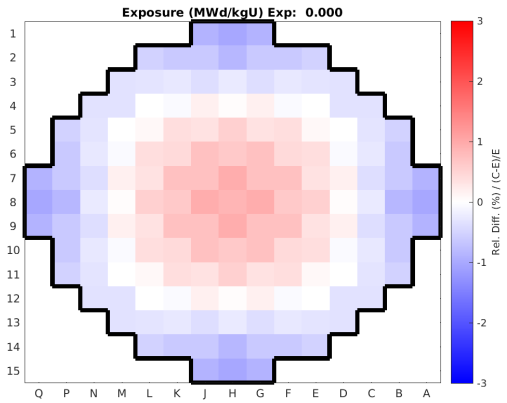
JEFF-4.0 testing and benchmarking

- Power map improvement



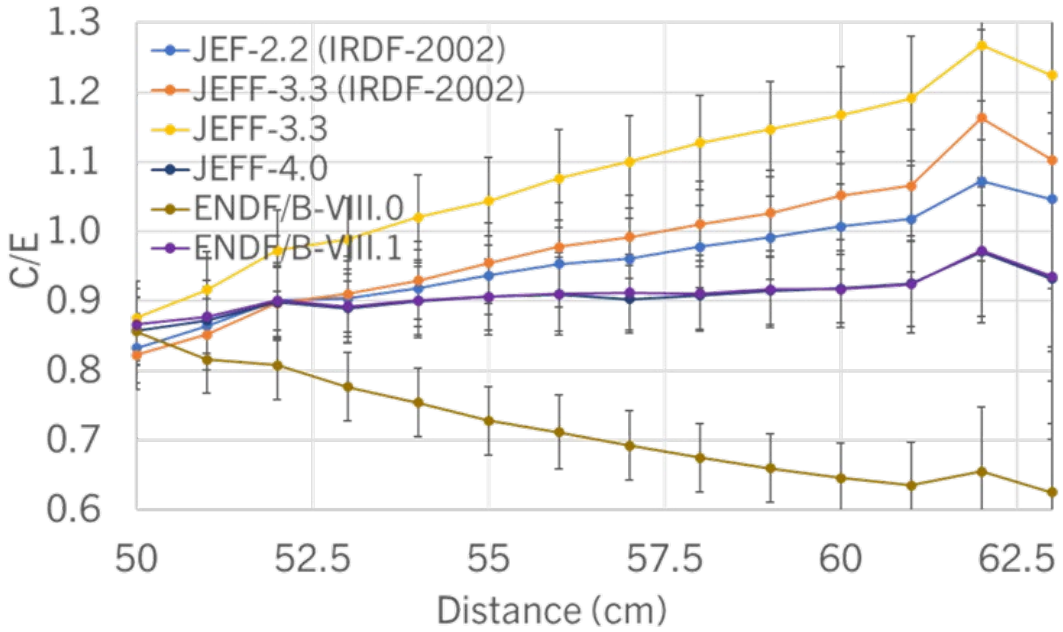


Improved hot zero power map for Fessenheim cycle 1

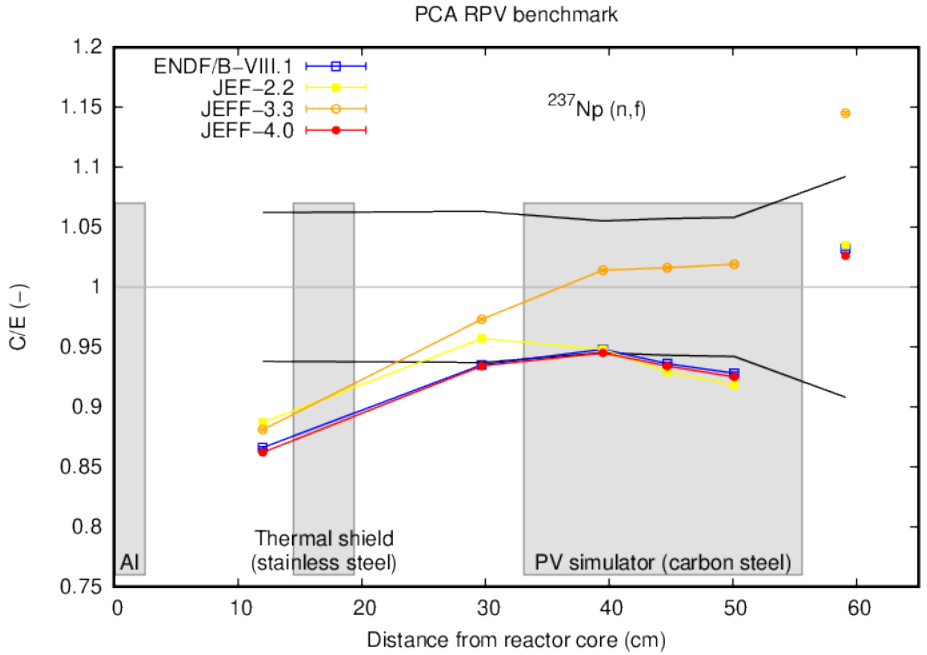
Ref: M. Hursin, *Benchmarking of JEFF-4T5 with Dragon/PARCS*, JEFDOC-2425; Latest update 24 April 2025.

JEFF-4.0 testing and benchmarking

- Shielding benchmarks good (Fe changed)



Aspis Iron88 $^{32}S(n,p)$
T. Ware et al. 18 June 2025



PCA RPV benchmark
S. van der Marck, *Benchmarking results for JEFF-4T5*, JEFDOC-2426.

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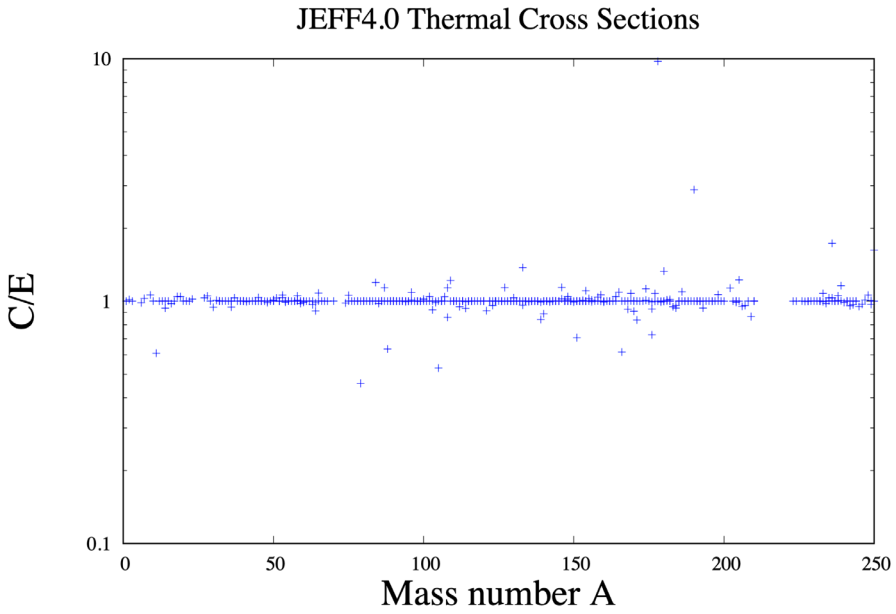
JEFF-4.0 testing and benchmarking

- Systematic comparison thermal CS, RI, MACS

FRMS vs ATLAS	JEFF-4.0	JEFF-3.3	TENDL-2023(24)	ENDF/B-VIII.1
Thermal cs	1.015	1.024	1.011	1.021
RI	1.043	1.038	1.045	1.030
MACS	1.062	1.076	1.052	1.064

A. Koning 12 March 2025

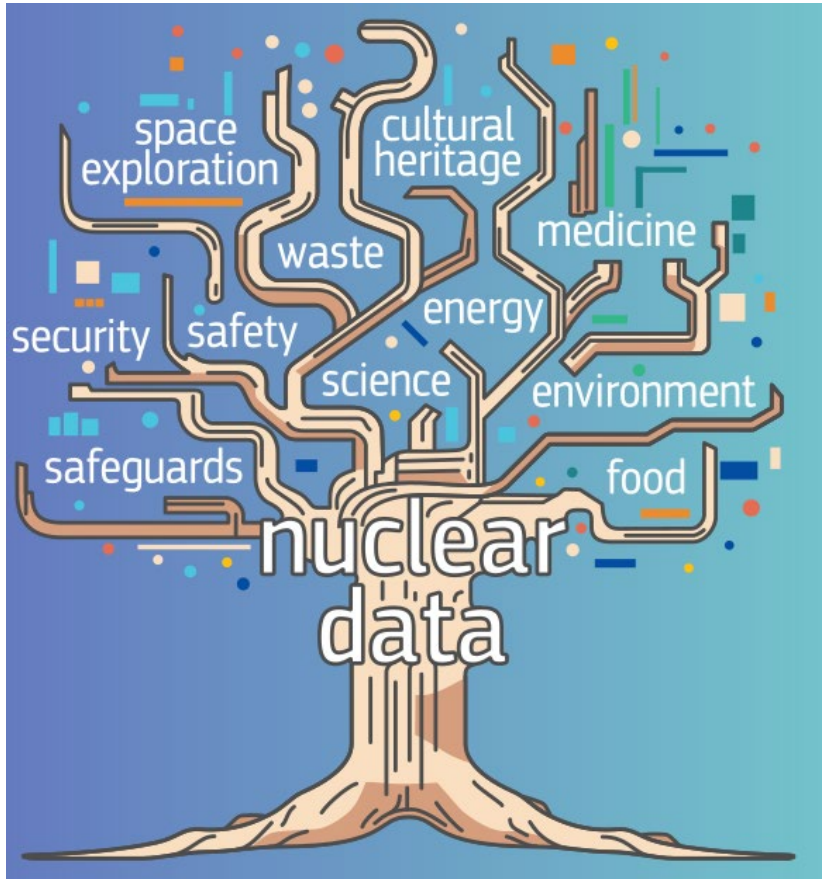


The NEA JEFF-4.0 product package

- Improved infrastructure development for data and code pipelines supporting JEFF project.
- JEFF-4.0 dedicated webpage with access and usage documentation.
- Processed data libraries accompanying the official JEFF-4.0 release.
  - ACE files for multiple temperature points (cross sections and TSLs) for Monte Carlo transport codes,
  - PENDF 0K (e.g., for FLUKA code),
  - HENDF resources (for JANIS),
  - GENDF and SSF resources (for FISPACT),
  - HDF5 files (for OpenMC).
- Enhanced record registration

Community and infrastructure

- Community well integrated, works well together and in excellent spirit
- Strong group of people in benchmarking, scope and methods improving rapidly
- We have a much-improved support at NEA for library support and development
- Important concerns about the ‘age distribution’ and the substantial reduction in the number of evaluators
- We must improve reach-out to developers and users



JEFF Nuclear Data Week April 2025

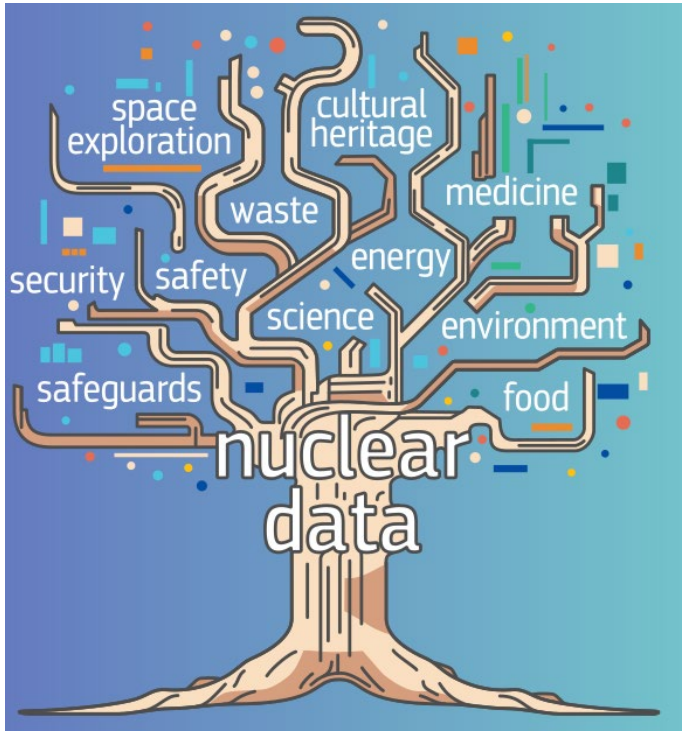
European Commission

Contributors to JEFF-4.0

The list of contributors to JEFF is under review. It will be available later.

Outlook

- Topical article collection with contents and benchmarking
- Contributions at ND2025 (plenary + technical)
- Release event hosted by NEA
- Dissemination at conferences and events
- Stakeholder meeting November 2025
- New JEFF development goals for JEFF-4.1… project cycle
- Gaining and maintaining momentum
- Reduce time of updates (4.1, 4.2…)
- Stimulating a new generation



Contributions to ND2025 related to JEFF-4.0

1. **A. Algora** et al., Plenary on Improving nuclear structure and decay data
2. **M. Fallot** et al., NA2STARS … TAGS NE-S6D1M1
3. **V. Guadilla** et al., β decay of ^{103,108}Tc and ^{103,108}Mo TAGS NE-S6D1M2
4. **S. Nandi** et al., β decay study of deformed ^{104,104m}Nb using TAGS NE-S6D1M2
5. **M. Estienne** et al., Update of summation calculations for reactor antineutrino spectra NE-S6D1M2
6. **G. Alcala** et al.,New beta spectrum shape measurements
7. **A. Stankovskiy** et al., JEFF-4.0 proton induced library DP-S3D1M1
8. **F. Grimaldi** et al., Nuclear data uncertainty propagation to VENUS-F cores: a correlation study UV-S2D1M2
9. **L. Fiorito** et al., Nuclear data uncertainty propagation for the MOX burnup benchmark case BM5 using SANDY UV-S2D2M1
10. **P. Romojaro** et al., On the verification of state-of-the-art nuclear data evaluations for a LFR UV-S2D3M1
11. **F. Di Croce** et al., Fission products reactivity worth: re-interpretation of MINERVE oscillation experiments CS-S6D3M2
12. **M. Brovchenko** et al., Heterogeneous critical experiments in STACY facility with high sensitivity to water thermal scattering law
13. **P. Sole** et al., Estimation of Uncertainties on Thermal Scattering Cross-Section of Light Water at High Temperatures
14. **J. Monlean de la Lluvia** et al., Impact of Iron-56 Covariance Data on Reactor Vessel Fluence Predictions: A Comparative Analysis
15. **R. Ichou** et al., Fission yield uncertainty quantification in decay heat calculations of spent nuclear fuel
16. **P. Sole** et al., Sampling Unresolved Resonance Parameters to Quantify Uncertainty on Probability Tables
17. **T. Ware** et al., Validation of JEFF-4.0 and ENDF/B-VIII.1 with the ANSWERS Software Suite
18. **J. Bartos** et al., Comparative analysis of the ENDF/B-VIII.1 and JEFF-4.0 nuclear data libraries using criticality and depletion benchmarks
19. **I. Manzano** et al., Nuclear Data Sensitivity Analysis of Key Parameters for eVinci-like Heat Pipes Nuclear Microreactors
20. **Iñigo Gayo** et al., Nuclear Data Validation Using LWR Measurements: Insights from the OECD/NEA TVA-WB1 Benchmark
21. **O. Cabellos** et al., Analysing Differences of Evaluated Nuclear Data for 235U, 238U, and 239Pu in the Fast Energy Region with a Focus on Angular Distributions
22. **N. Garcia-Herranz**, Towards evaluating target accuracies in experimental correlations among criticality experiments for reliable data assimilation studies
23. **A. Marro** et al., On the potential of H.B. Robinson-2 benchmark for nuclear data validation
24. **G.F. Garcia-Fernandez** et al., Assessment of passive neutron monitor based on TLDs with application in proton therapy centers and research facilities with accelerators

Contributions to ND2025 related to JEFF-4.0

25. **M. Stefanowska-Skrodzka** et al. Modelling the TEX-HEU and TEX-Hf Benchmarks with the MONK12B Criticality Code,. #527
26. **P. Schoofs** et al., Processing and integration of nuclear data into Fluka's fifth generation, #629
27. **J. I. Marquez-Damian**, An update to the CAB Model: new thermal scattering libraries for light water in ENDF/B-VIII.1 and JEFF 4.0
28. **A. Trkov**, Toward a new evaluation of neutron induced reactions on U-233 for JEFF4
29. **B. Jansky**, Measured neutron leakage spectra from Iron spheres of diameter 20,30,50 and 100cm with Cf-252 neutron source in center - comparison with calculations using ENDF/B-VIII.1 and JEFF-4T2-data libraries
30. **J. Hollis**, Fusion decay heat benchmarking of the latest nuclear data libraries with FISPACT-II
31. **J. Sprenger**, Modernizing Nuclear Reaction Data Management: Leveraging Open Source Project Management Practices, Version Control, Automation, and Open Source Solutions for Future Proof Projects.
32. **D. Bernard**, Impact of Thermal Neutron Induced Fission Product Yields Evaluations on LWR Calculation Outcomes.
33. **S. Portolan**, Comparative Analysis of Decay Heat in Spent Nuclear Fuel: Measurements Versus Calculations Using Multiple Nuclear Data Libraries with Serpent2.
34. **G. Kessedjian**, Measurement of the 99Y isomeric ratio in the 239,241Pu(nth,f) reactions with the LOHENGRIN spectrometer.
35. **G. Noguere**, Nuclear structure model codes in support to neutron-induced cross-section evaluations.

It is quite possible that this list is incomplete. Apologies for any oversight.

Thank you

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