



D. Rochman

# Benchmarking JEFF-3.3T1 with some criticality-safety cases

JEFF meeting, evaluation WG, Apr. 26, 2016, OECD Headquarters, Paris, France



# Contents

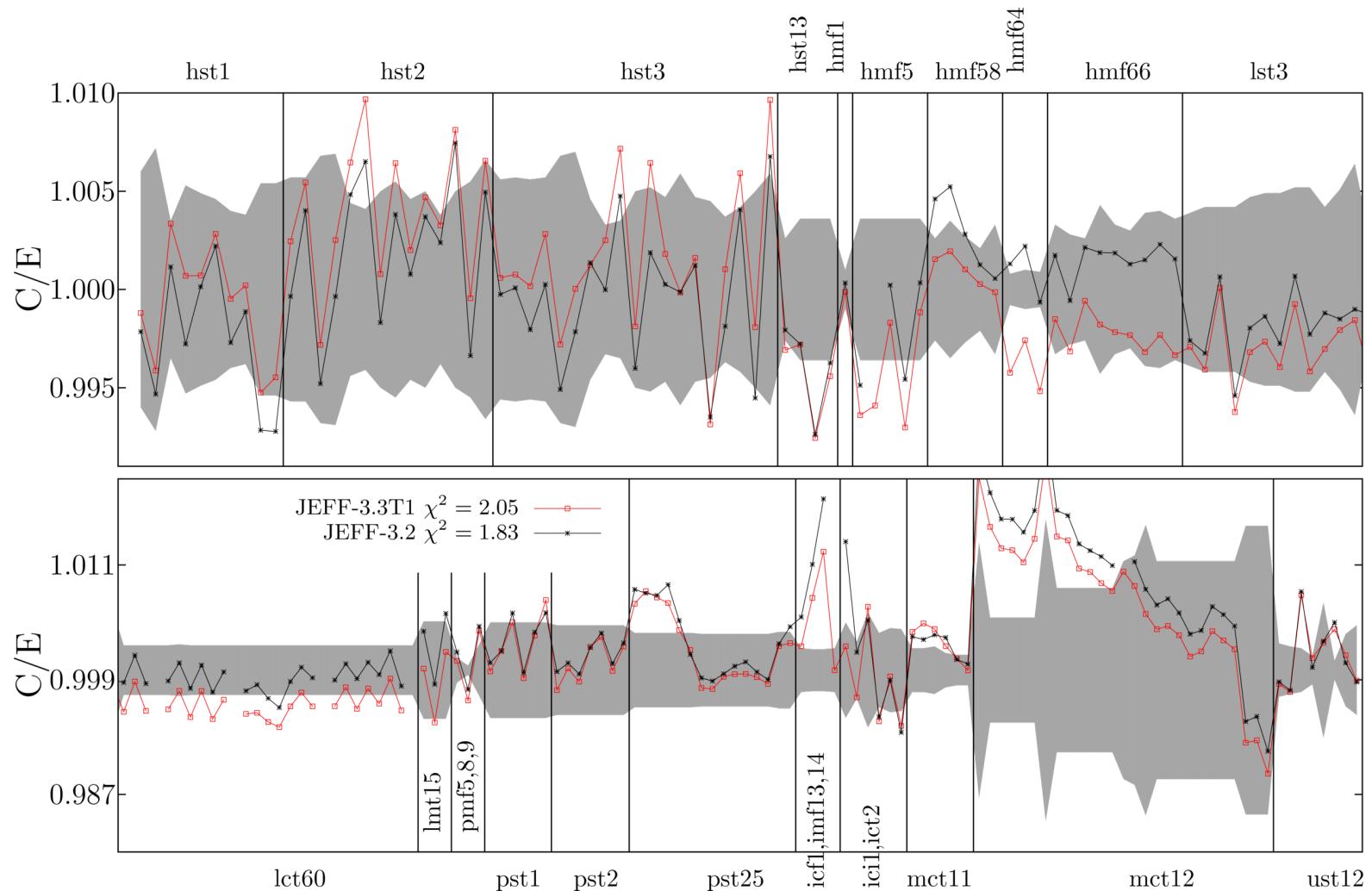
- Source of the criticality-safety benchmarks
- Results JEFF-3.3T1 and JEFF-3.2
- Results JEFF-3.3T1 and JEFF-3.3T1 + new  $^{16}\text{O}$  „high“ from IRSN
- Conclusions

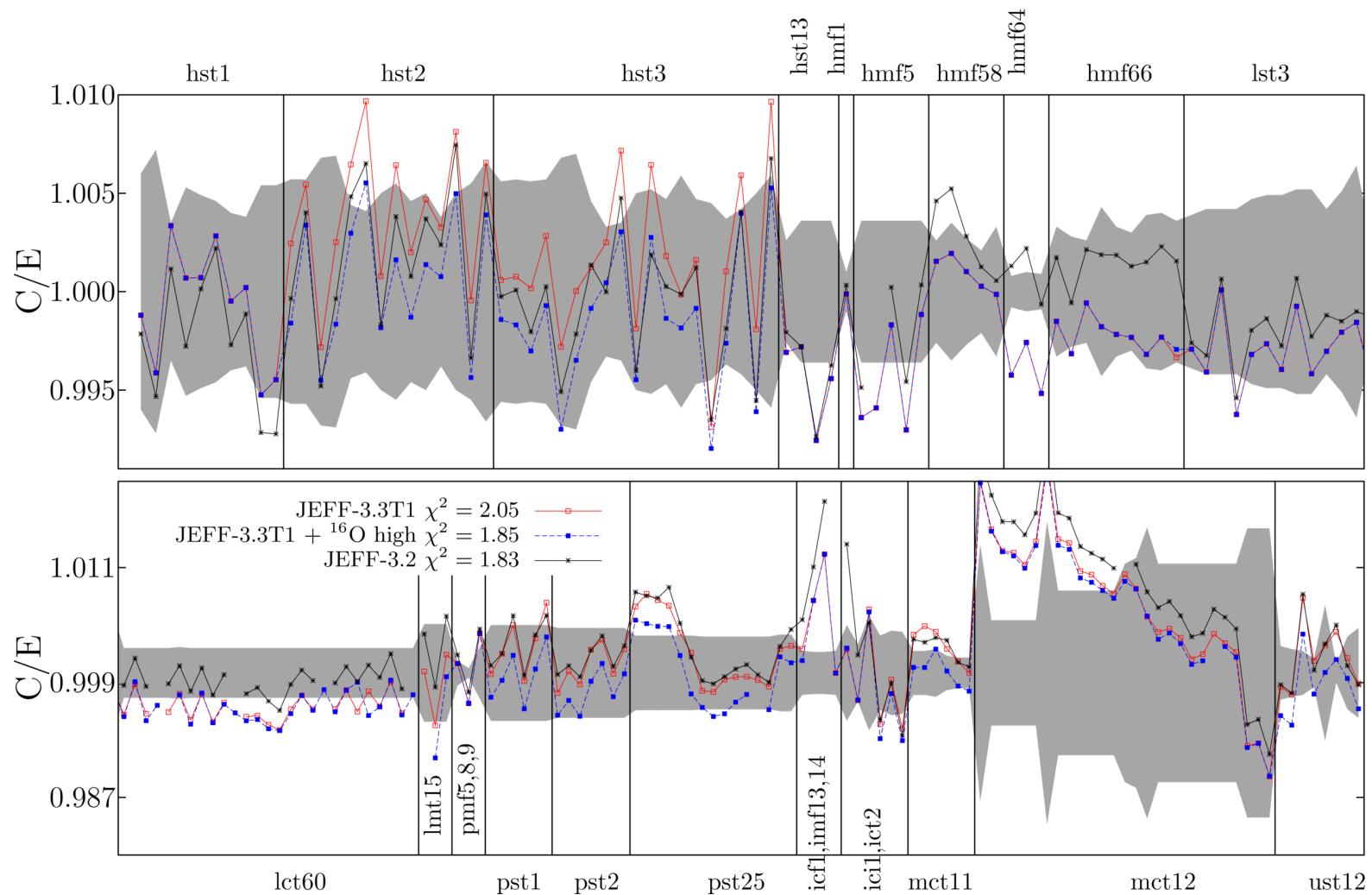
# Criticality-safety benchmarks

- A sub-selection of 195 benchmarks
- Based on MCNP inputs from S. van der Marck (NDS 113 (2012) 2935)
- ACE files from the NEA, released on April 7, 2016

<http://www.oecd-nea.org/dbdata/jeff-beta/JEFF33T1/neutrons/>

- MCNP6
- See other benchmarking at PSI from M. Pecchia (this meeting)

**JEFF-3.3 T1 vs. JEFF-3.2**

**JEFF-3.3 T1 vs. JEFF-3.3 T1 +  $^{16}\text{O}$** 

# Conclusion

- Based on these 195 criticality benchmarks, JEFF-3.2 performs better than JEFF-3.3T1
- Based on these 195 criticality benchmarks, JEFF-3.3T1+<sup>16</sup>O performs as good as JEFF-3.2
- This is only part of the benchmarking (see other results)