

# STATE OF THE EMPIRE

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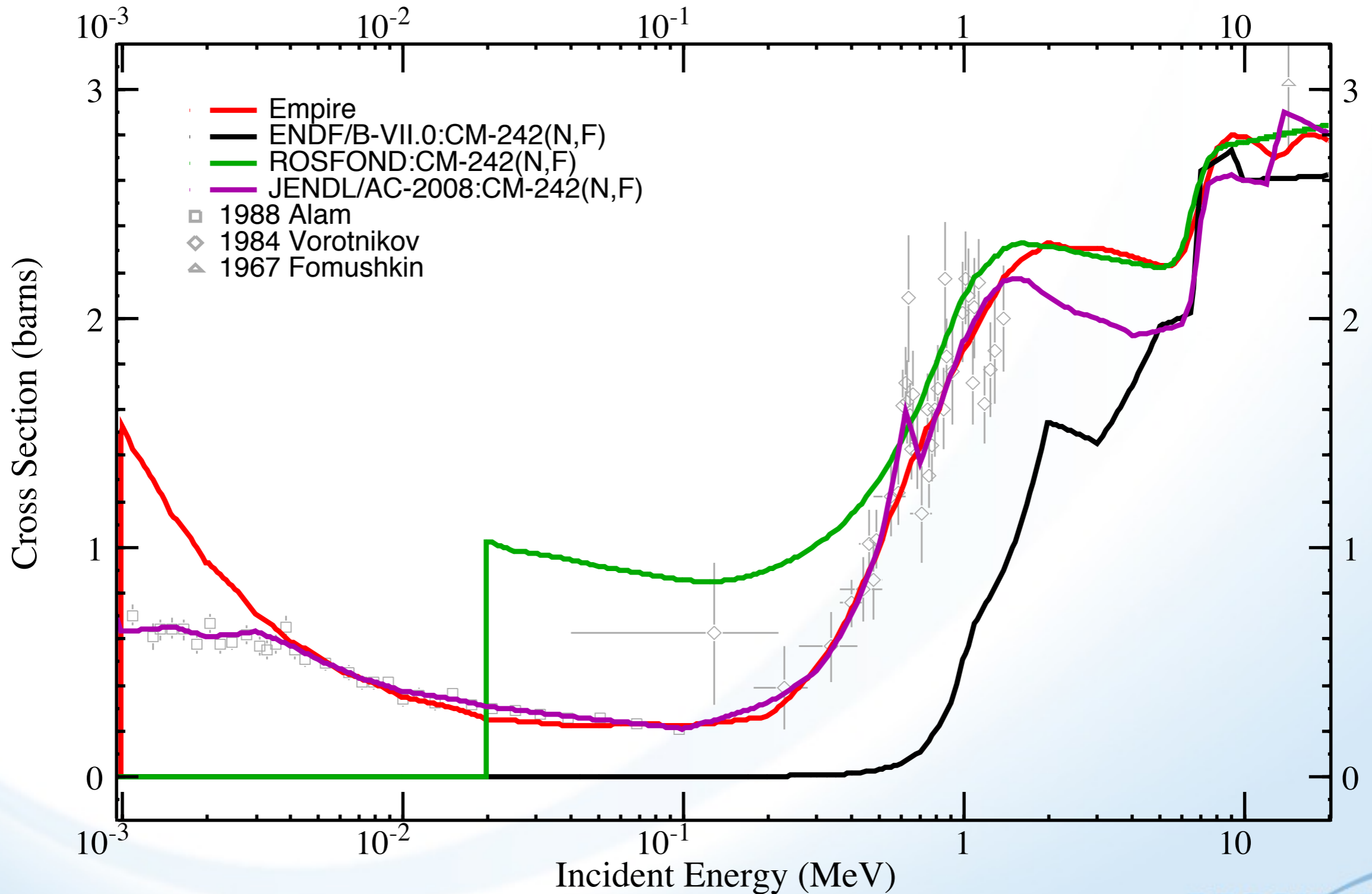


# EMPIRE development (physics)

- DDHMS preequilibrium model extended to produce exclusive spectra
- KERCCEN code incorporated in the EMPIRE system (still not linked through GUI)
- Primary capture gammas isolated and printed separately (work in progress for EGAF)
- Further improvements of the resonance module
- Disentangling overlapping reactions using exclusive spectra
- New parametrization of the fission channel (M. Sin)

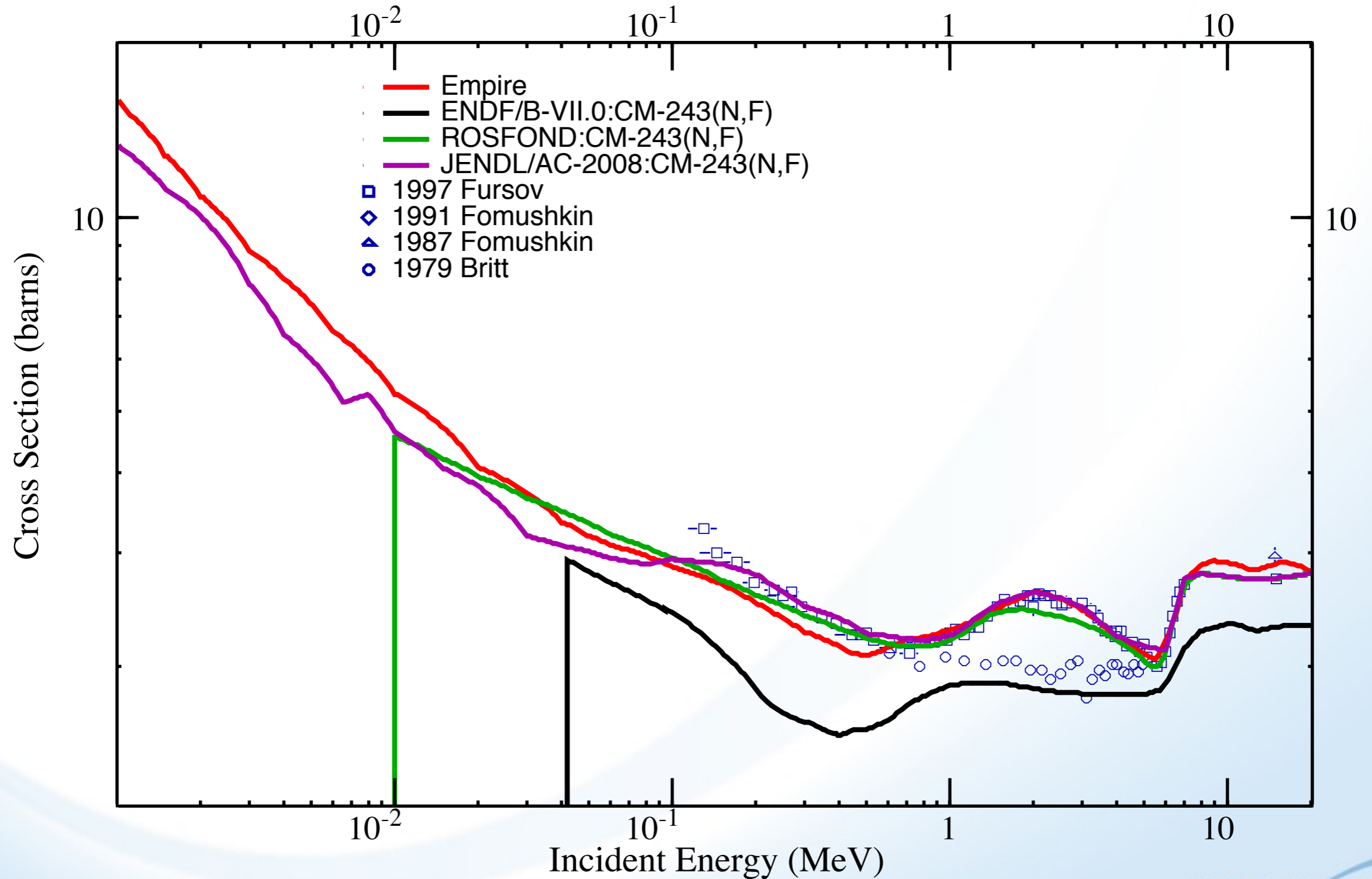
# 242-Cm(n,f)

## New fission parametrization in EMPIRE



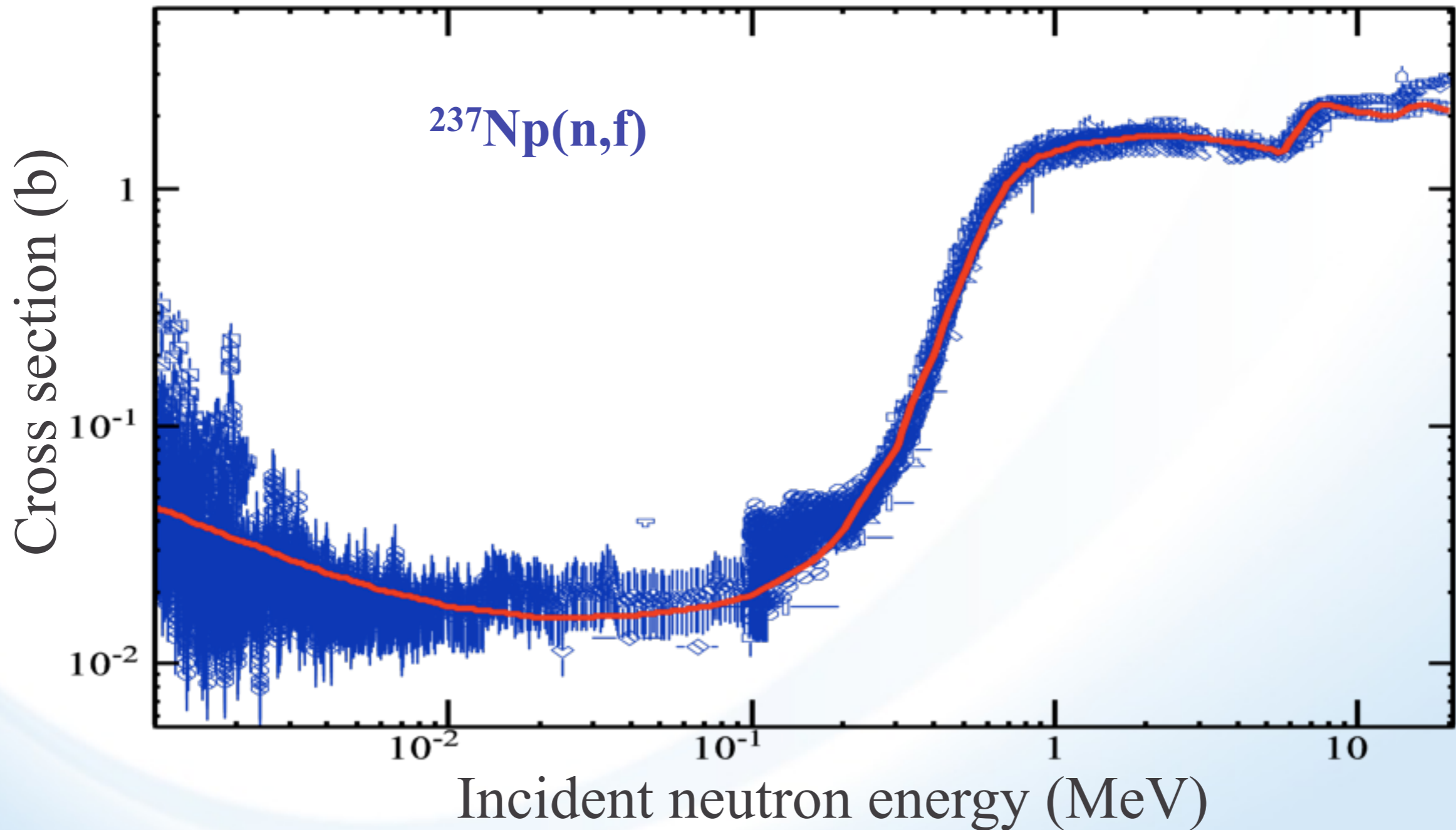
# 243-Cm(n,f)

## New fission parametrization in EMPIRE



# $^{237}\text{Np}(n,f)$

## New fission parametrization in EMPIRE





# EMPIRE development (software)


- EMPIRE development migrated to GForge and Subversion (public project)
- Parallel processing on the NNDC cluster using 'qsub'
- Better support for Mac's
- Problem with gfortran fixed (EMPIRE compiles with free FORTRAN on Linux and Mac, and Windows (physics core only))
- New GUI tab added for subversion control of calculate results

# EMPIRE in GForge

<https://ndclx4.bnl.gov/gf/project/empire/>

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## Nuclear Reaction Model Code

[Download instructions](#) | [Current version \(SVN\)](#) | [Previous releases](#) | [Documentation](#) | [Bug tracker](#) | [Mailing lists](#)

### Recent News

No news items found

Time	Activity Type	By
2010-Oct-23		
17:58:00	<a href="#">Commit: Small update to mgBase.py, to fix issue reported by S.Hoblit</a>	<a href="#">Caleb Mattoon</a>
16:05:49	<a href="#">Commit: CHECKR tests for STA and NST in decay libraries</a>	<a href="#">Andrej Trkov</a>
2010-Oct-22		
06:01:02	<a href="#">Commit:</a>	<a href="#">Andrej Trkov</a>
05:48:20	<a href="#">Commit: Fix coding for ISR=1 in MF32</a>	<a href="#">Andrej Trkov</a>



# EMPIRE developers active in FY2010

- Roberto Capote (IAEA)
- Brett Carlson (ITA, Sao Jose dos Campos)
- Caleb Mattoon (BNL/LLNL)
- Marco Pigni (BNL)
- Mihaela Sin (U. Bucharest)
- Andrej Trkov (JSI, Ljubljana)
- Viktor Zrkin (IAEA)