



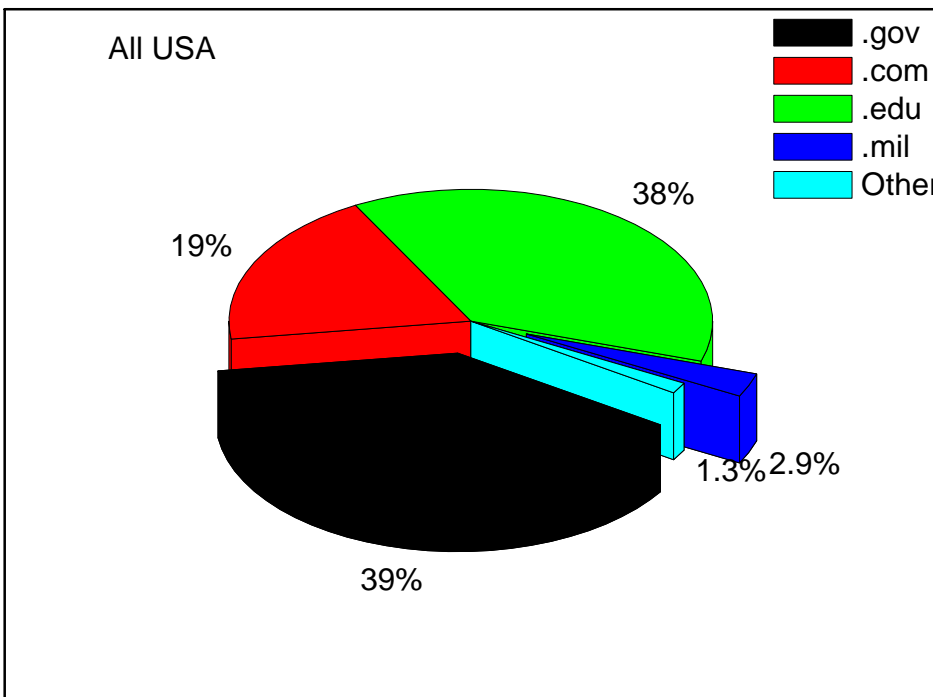
# Status of CSISRS/EXFOR compilation

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# Inside EXFOR

- Library of compiled experimental nuclear reaction data ( $E < 1 \text{ GeV}$ )
- More than **16 500** publications compiled since 1965  
(at NNDC: 183 in 2004, 411 in 2005, 171 in 2006)



US Government Organization	Retrievals %
LANL	16.0
SANDIA	11.2
LLNL	10.0
LBL	5.0
ORNL	5.0
BNL	1.1
NASA	0.4
NIST	0.3

US Military	Retrievals %
Navy+Army	2.4
Pacific Northwest Nat. Lab.	0.5

Universities	Retrievals %
Washington Univ.	10
Johns Hopkins Univ.	8.6
Cambridge	8.1
RPI	7.3
Duke	6
Colorado	5.7
Harvard	5.3
Maryland	4.9
Western Michigan	4.6
Kansas	3.5
kentucky	3.3
Ohio Univ.	3.2
UDEL	2.9
MSU	2.9
Other Univ.	23.7

# NNDC Statistics

% of use  
(combination allowed)

Target : 78 %  
 Reaction: 75 %  
 Quantity : 44 %  
 Author : 7 %  
 Product : 3 %  
 Accession: 9 %  
 Last Modified: 1 %  
 Area : < 0.2 %  
 Publi. Year: < 0.1 %  
 Energy : Unknown

Specific Reaction	IAEA 2005	NNDC 2005	NNDC 2006
N,G	10.1	5.9	10.9
P,N	6.1	5.1	6.1
N,P	5.3	2.9	4.9
N,TOT	4.7	8.3	5.2
P,X	4.4	2.8	3.3
N,2N	4.0	3.3	3.2
N,F	3.6	2.4	4.5
N,INL	3.5	1.7	2.3
N,A	3.5	3.6	4.7
N,X	2.7	1.5	1.5
N,EL	2.1	4.3	2.4
G,N	1.9	2.6	2.6
N,D	1.4	0.4	0.6
N,N+P	1.3	0.3	0.4
D,N	1.2	2.6	2.6
Other	44.2	52.2	44.7

More than 80 % of users are interested in cross sections and differential cs.

# Quality Control of compilations



Deficiencies in EXFOR:

- Wrong units (mb instead of b...)
- Error in typing numbers
- Error in reading graphs
- Error in the X4toC4 code

Complains from experimentalist/evaluators

1. Corrections of obvious mistakes
2. Quality flagging



What is CSWEG opinion ?

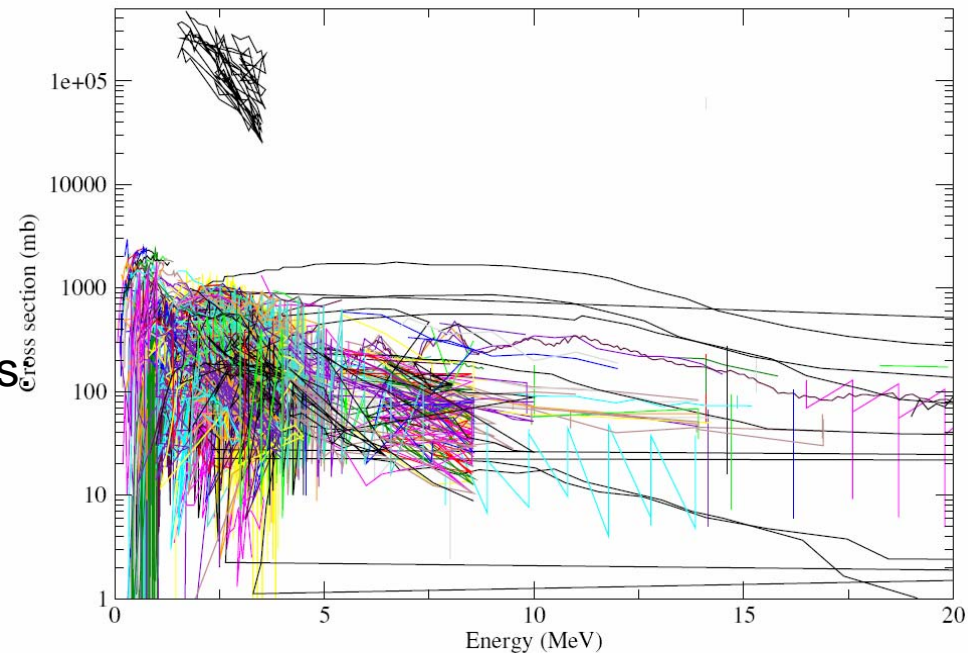
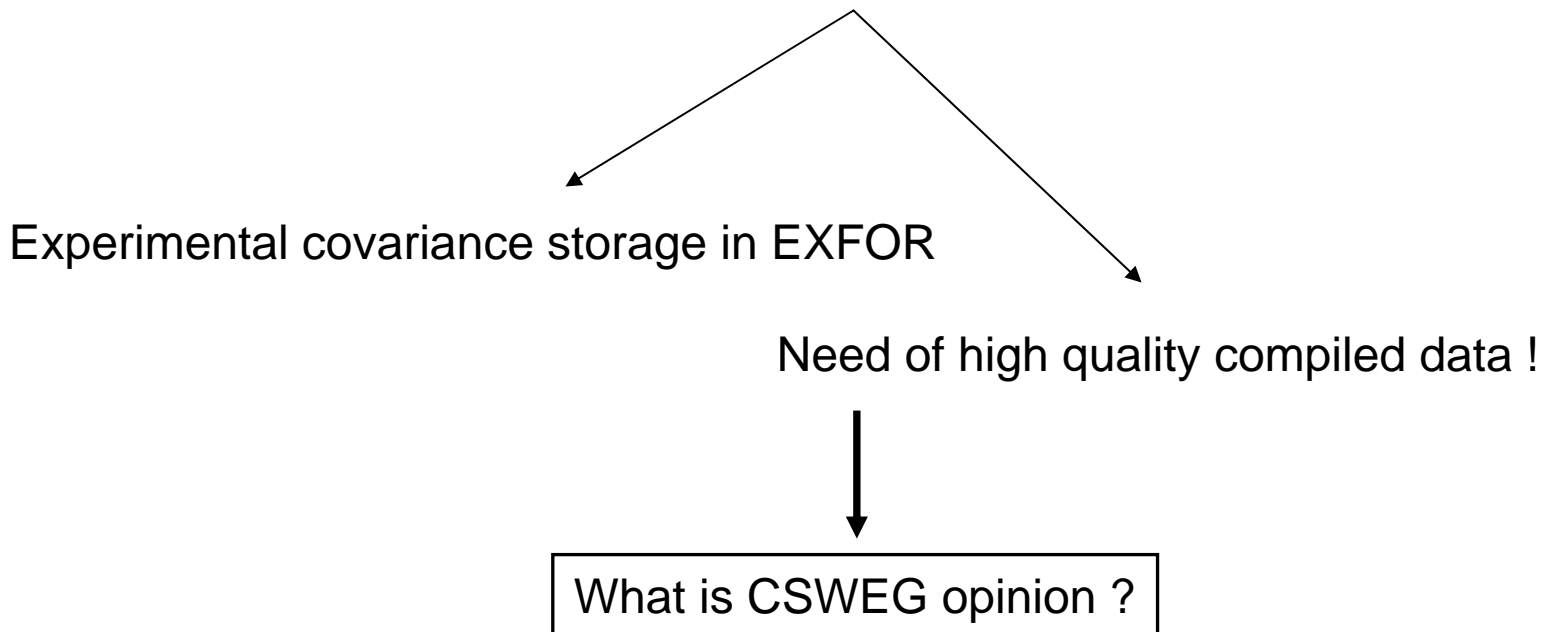


Figure 1: EXFOR data for MT51: the outliers are (n,n') data from A.B. Smith on Ag-107.

# Experimental Covariance

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- Experimental facilities are producing experimental covariances in the RRR and URR (ORNL, RPI, ORELA, n-TOF...)
- These covariances are important for the evaluations of MF-32, MF-33
- Quality flagging of EXFOR experimental data would help to evaluate covariances



# Conclusion

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- **Increasing number of compilations**
- **Visit [www.nndc.bnl.gov/exfor](http://www.nndc.bnl.gov/exfor)**
- **More contact compiler-experimentalist is needed**
- **More contact compiler-evaluator is needed**
- **Open question on quality flagging**
- **Open question on covariance storage**