

NuDat FY11 Report

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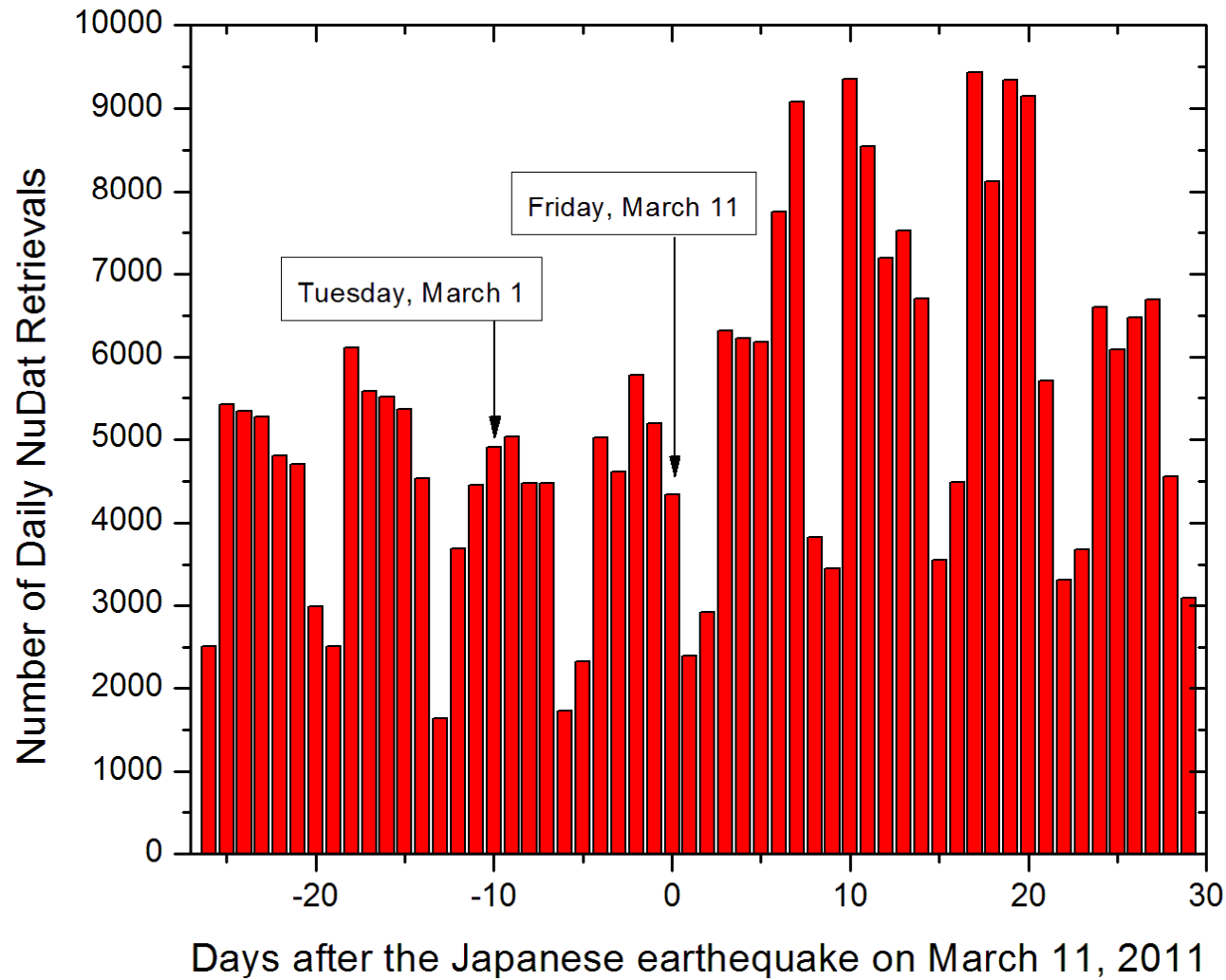
a passion for discovery



New for this year

- 2011 Atomic Mass Evaluation Update
- 2011 Nuclear Wallet Cards
- 1.584 M retrievals, 24% increase
- 1.273 M retrievals in 2010
- New coloring schemes to be implemented

Daily NuDat retrievals around March 11

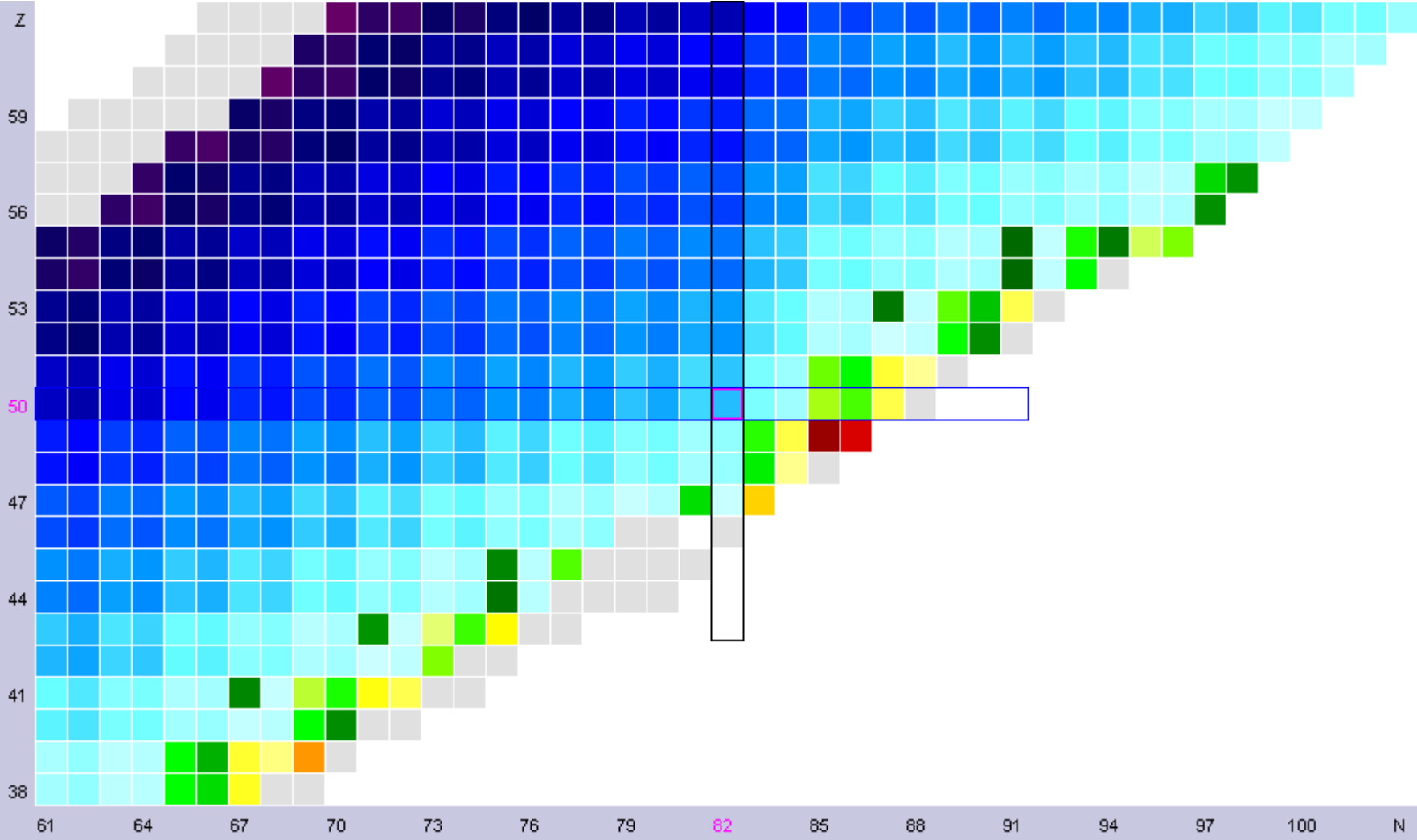


Average beta strength function from half-life values

$$\langle S\beta \rangle = a / (T_{1/2} \int f(E) dE)$$

Z	210Bi 5.012 D β^- : 100.00% α : 1.3E-4% 7.49E-5	211Bi 2.14 M α : 99.72% β^- : 0.28%	212Bi 60.55 M β^- : 64.06% α : 35.94% 4.28E-4	213Bi 45.59 M β^- : 97.80% α : 2.20% 4.65E-3	214Bi 19.9 M β^- : 99.98% α : 0.02% 2.34E-4	215Bi 7.6 M β^- : 100.00% 3.88E-3	216Bi 2.25 M β^- : 100.00% 7.38E-4	217Bi 98.5 S β^- : 100.00% 4.22E-3	218Bi 33 S β^- : 100.00% 1.43E-3
82	209Pb 3.253 H β^- : 100.00% 4.35E-2	210Pb 22.20 Y β^- : 100.00% α : 1.9E-6% 3.06E-2	211Pb 36.1 M β^- : 100.00% 7.40E-3	212Pb 10.64 H β^- : 100.00% 2.38E-2	213Pb 10.2 M β^- : 100.00% 4.26E-3	214Pb 26.8 M β^- : 100.00% 3.84E-2	215Pb 147 S β^- : 3.51E-3	216Pb >300 NS β^- :	217Pb >300 NS β^- :
81	208Tl 3.053 M β^- : 100.00% 2.36E-4	209Tl 2.161 M β^- : 100.00%	210Tl 1.30 M β^- : 100.00% β -n: 7.0E-3% 3.62E-4	211Tl >300 NS β^- :	212Tl >300 NS β^- :	213Tl 101 S β^- : 4.41E-4	214Tl >300 NS β -n β^- :	215Tl >300 NS β -n β^- :	216Tl >300 NS β -n β^- :
80	207Hg 2.9 M β^- : 100.00% 3.06E-4	208Hg 41 M β^- : 100.00%	209Hg 35 S β^- : 100.00% 1.17E-3	210Hg >300 NS β^- :	211Hg >300 NS β^- - β -n:	212Hg >300 NS β -n β^- :	213Hg >300 NS β -n β^- :	214Hg >300 NS β -n β^- :	215Hg >300 NS β -n β^- :
79	206Au >300 NS β^- :	207Au >300 NS β -n β^- :	208Au >300 NS β -n β^- :	209Au >300 NS β -n β^- :	210Au >300 NS β -n β^- :	Use neighboring nuclei to obtain $T_{1/2}$			
	127	128	129	130	131				

Beta-2n Q-value





ND2013

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Office of Science

