

The significance test was done with the Mann-whitney U test method. This method is a non-parametric test for unpaired samples with no assumptions of their distributions (different from Student T test).

$P=1$  means the two datasets are identical and  $p < 5\%$  ( $h=1$ ) indicates both datasets are significantly different

**Results:**

Comparison  $D_{\text{eff}}$  of 26 March and 7 April 2014:  $p = 0.0027346$ ,  $h=1$

Comparison  $N_{\text{par}}$  of 26 March and 7 April 2014:  $p = 0.0$ ,  $h=1$

Comparison  $D_{\text{eff}}$  of 26 March and 7 April 2014:  $p = 0.0$ ,  $h=1$

Comparison  $N_{\text{par}}$  of 26 March and 7 April 2014:  $p = 0.11445$ ,  $h=1$

Comparison  $D_{\text{eff}}$  all:  $p=0.21896$ ,  $h=1$

Compariosn  $N_{\text{par}}$  all:  $p=0.055504$ ,  $h=1$

Comparison  $D_{\text{eff}}$  T = [210-215]:  $p=5.68e^{-6}$ ,  $h=1$

Compariosn  $N_{\text{par}}$  T = [210-215]:  $p=4.37e^{-8}$ ,  $h=1$

Temperature/K	p-value for $D_{\text{eff}}$	p-value for $N_{\text{par}}$
208	0.000089346771183	0.203500586807082
209	0.000000000079685	0.000000000007271
210	0.247314327354255	0.000000398791608
211	0.000147928141202	0
212	0.004225973629796	0.125582277030740
213	0.399044916857030	0.079586093204909
214	0.175375892497683	0.160126851351188
215	0.466861486969759	0.020467446677696
216	0.381986850641420	0.223630929883747
217	0.436158517018589	0.460791042628778