Jacobi's method of successive 2D rotations

After 0 rotations: 0.303834 = off-diag. rms

A=					V=			
1.0000	0.5000	0.3333	0.2500		1.0000	0.0000	0.0000	0.0000
0.5000	0.3333	0.2500	0.2000		0.0000	1.0000	0.0000	0.0000
0.3333	0.2500	0.2000	0.1667		0.0000	0.0000	1.0000	0.0000
0.2500	0.2000	0.1667	0.1429		0.0000	0.0000	0.0000	1.0000

After 1 rotations: 0.225051 = off-diag. rms

A=				V=			
1.2676	0.0000	0.4119	0.3148	0.8817	-0.4719	0.0000	0.0000
-0.0000	0.0657	0.0631	0.0584	0.4719	0.8817	0.0000	0.0000
0.4119	0.0631	0.2000	0.1667	0.0000	0.0000	1.0000	0.0000
0.3148	0.0584	0.1667	0.1429	0.0000	0.0000	0.0000	1.0000

After 2 rotations: 0.149590 = off-diag. rms

A=				V=			
1.4080	0.0204	0.0000	0.3517	0.8345	-0.4719	-0.2845	0.0000
0.0204	0.0657	0.0598	0.0584	0.4466	0.8817	-0.1523	0.0000
0.0000	0.0598	0.0596	0.0562	0.3227	0.0000	0.9465	0.0000
0.3517	0.0584	0.0562	0.1429	0.0000	0.0000	0.0000	1.0000

After 3 rotations: 0.041928 = off-diag. rms

A=				V=			
1.4992	0.0344	0.0141	0.0000	0.8078	-0.4719	-0.2845	-0.2095
0.0344	0.0657	0.0598	0.0514	0.4323	0.8817	-0.1523	-0.1121
0.0141	0.0598	0.0596	0.0544	0.3124	0.0000	0.9465	-0.0810
-0.0000	0.0514	0.0544	0.0516	0.2510	0.0000	0.0000	0.9680

After 4 rotations: 0.034100 = off-diag. rms

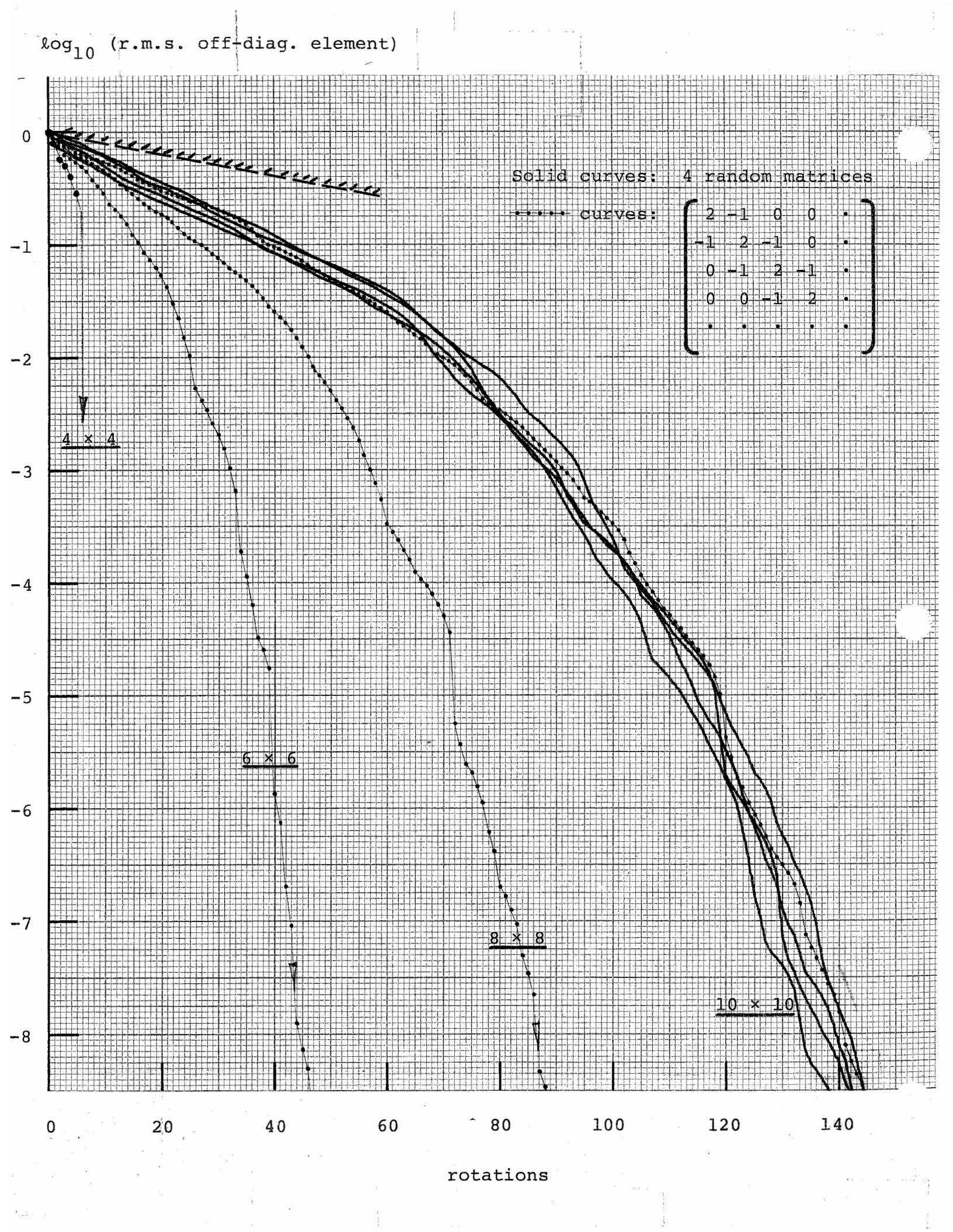
A=				V=			
1.4992	0.0346	-0.0134	0.0000	0.8078	-0.5381	0.1187	-0.2095
0.0346	0.1225	0.0000	0.0747	0.4323	0.5344	-0.7176	-0.1121
-0.0134	-0.0000	0.0028	0.0040	0.3124	0.6518	0.6863	-0.0810
-0.0000	0.0747	0.0040	0.0516	0.2510	0.0000	0.0000	0.9680

After 5 rotations: 0.015256 = off-diag. rms

A=				V=			
1.4992	0.0293	-0.0134	-0.0185	0.8078	-0.5667	0.1187	0.1106
0.0293	0.1697	0.0022	0.0000	0.4323	0.3917	-0.7176	-0.3804
-0.0134	0.0022	0.0028	0.0034	0.3124	0.5076	0.6863	-0.4169
-0.0185	0.0000	0.0034	0.0044	0.2510	0.5174	0.0000	0.8181

After 14 rotations: λ_2 0.000008 = off-diag. rms $\vec{u}_2$

A=				V=			
1.5002	0.0000	0.0000	-0.0000	0.7926	-0.5821	0.0292	0.1792
0.0000	0.1691	-0.0000	-0.0000	0.4519	0.3705	-0.3287	-0.7419
0.0000	-0.0000	0.0001	-0.0000	0.3224	0.5096	0.7914	0.1002
-0.0000	-0.0000	-0.0000	0.0067	0.2522	0.5140	-0.5145	0.6383


log10 (r.m.s. off-diag. element)
0
-1
-2
-3
-4
-5
-6
-7
-8
Solid curves: 4 random matrices
curves:
2 -1 0 0 ·
-1 2 -1 0 ·
0 -1 2 -1 ·
0 0 -1 2 ·
· · · · ·
4 × 4
6 × 6
8 × 8
10 × 10
0
20
40
60
80
100
120
140
rotations