

## **APPENDIX J**

**The optimal weight for MDOF duffing (hardening type) system with  
unknown damping**

Table J The optimal weight for MDOF duffing (hardening type) system with unknown damping

$u_{ih}$	1	2	3
1	0.1851265938	-0.1677789875	0.7756165519
2	-4.3763178359	4.1920598318	0.0619380121
3	0.3898716926	-0.9515048987	0.3045865290
4	-0.0924046321	0.5653652844	-1.2790416064
5	-0.3008489919	-0.3407169836	0.0673192879
6	1.4046110181	1.7200002362	-5.8842095992
7	4.9413674345	4.6742386718	0.1199491210
8	-1.4092787092	-1.6630898787	5.8094531228

$v_h$	1
1	-0.1302822
2	0.3878314
3	3.4677441
4	-1.2797308
5	-0.3260523
6	-0.2704320
7	1.8826164
8	3.6652251
9	1.9010210