

APPENDIX 2

Denote a 3x3 matrix R as

$$R = \begin{pmatrix} a & d & d \\ b & e & e \\ c & f & f \end{pmatrix}$$

where a, b, c, d, e and f correspond to the terms in (1.b) and (1.c) in the text. The characteristic equation is

$$-\lambda(\lambda^2 - (a + e + f)\lambda + ae + af - bd - cd) = 0$$

and the three eigenvalues are:

$$\lambda = 0$$

$$\left(\lambda = (a + e + f) + \sqrt{(a + e + f)^2 - 4(ae + af - bd - cd)} \right)$$

$$\left(\lambda = (a + e + f) - \sqrt{(a + e + f)^2 - 4(ae + af - bd - cd)} \right)$$