















Will a Large Complex System be Stable?

Gardner and Ashby1 have suggested that large complex systems

<text><text><text><text>

$$d\mathbf{x}/dt = \mathbf{A}\mathbf{x}$$

(1)

Here in an ecological context x is the $n \times 1$ column vector of The in all ecological context is the $n \times n$ interaction matrix the disturbed populations x_p , and the $n \times n$ interaction matrix A has elements a_{jk} which characterize the effect of species k on species j near equilibrium^{2,3}. A diagram of the trophic web immediately determines which a_{jk} are zero (no web link), and the type of interaction determines the sign and magnitude of a of ajk.





























