

Structural Attractiveness of Low-Dimensional Zero-One Networks

Xiaoxian Tang
Beihang University, China

Zero-one networks play a key role in cell signaling. A reaction network is structural attractive if the network admits at most one stable steady state. We show that if the dimension of a zero-one network is strictly less than three, then the network is structural attractive. We further classify all one-dimensional and two dimensional zero-one networks according to if they admit a stable steady state or not.