Predicting Criticality and Dynamic Range in Complex Networks: Effects of Topology

[illegible] [1,*] [illegible] [2] [illegible] [1]

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[illegible] [1,2] [illegible] [3] [illegible] dynamic range [illegible] [4] [illegible] [5] [illegible] [2]. [illegible] [2,4] [illegible] [6,7]. [illegible] [2], [illegible] m [illegible] x_i. [illegible] $x_i = 0$ [illegible] $x_i = 1$ [illegible] $x_i = 2, 3, \ldots, m-1$ [illegible] $t = 0, 1, \ldots$ [illegible] $x_i^t = 0$ [illegible] $x_j^t = 1$ [illegible] A_{ij} [illegible] $A = \{A_{ij}\}$ [illegible] $x_i^t \geq 1$ [illegible] ($x_i^{t+1} = x_i^t + 1$ [illegible] $1 \leq x_i^t < m-1$, [illegible] $x_i^{t+1} = 0$ [illegible] $x_i^t = m-1$). [illegible] [2 [illegible]

e e e F a e q a a e b a . I
a a , $\lim_{\square \to 0} F = 0$ $\square < 1$ a $\lim_{\square \to 0} F > 0$
$\square > 1$. I a , e a a e e e
a b a e a $\square = 1$ Te a a e e $\square$
e e Re . [2,4] a a ae ae b a a ,
e e e a $\square = \frac{1}{N} \sum_{i;j} A_{ij} = \langle$

$\in [2{:}0; 6{:}0]$,

; (5)

$\langle d \rangle = 1$,

$[0{:}7; 1{:}3]$; (6)

, $A_{ij} = \square / d^{out}$.

W ... $(A_{ij} \in \{0; 1\})$ ...

0 ...

[illegible] [2,7] [illegible] [7]. T [illegible] $\in [2.0, 6.0]$, [illegible] $= 1$ [illegible] Eq. (9) [illegible] Fig. 3.

[illegible] $= 1$. T [illegible] M [illegible] [19] [illegible] [4] [illegible]

[illegible] (1) [illegible] ≈ 1, [illegible] (2) [illegible]

W [illegible] E [illegible] O [illegible] D [illegible] Pe [illegible]