Network Science Errata

(2nd Printing)

Page	Error	Correction	Clarification
Pg. XVII (Preface)		Finally, Sarah Shugars, R. Bharath, Susanne Nies, Harsha Gwalani, Jörg Franke, by communicating a series of typos, have helped make this print as error free as feasible.	
Pg. 44, Figure 2.1	Caption, last two sentences: Now only one node was left	Now only two nodes were left	
Pg. 53, eq (2.12)	Line under N and above 2 in the second part	$L_{max} = \binom{N}{2} = \frac{N(N-1)}{2}$	Line under N and above 2 in the second part
Pg. 75, bullet no. 2	If the number exceeds p,	If the random number is less than p	
Pg. 84, Figure 3.7, (c) Critical point	<k>-1	<k>=1	
Pg. 85, last title	**Critical point:** <k>=1 (p = 1, Figure 3.7c)	**Critical point:** <k>=1 (p = 1/N, Figure 3.7c)	
Pg. 88, Figure 3.8 caption	At z = 1 trees of all orders are present	At z = -1 trees of all orders are present	
Pg. 91	end of last full paragraph: (**Advanced topics 3.F**).	(**Advanced topics 3.G**).	
Pg. 96, Fig 3.14	<C>=3/4 (p=0).	<C>=1/2 (p=0).	
P 116: Eq. (4.2)	lm pk ~ γ lm k.	ln pk ~ γ ln k.	
Pg. 119	The probability of having a node with k=10 is	The probability of having a node with k=100 is	
Pg. 135, Box. 4.5		In the white bubble under label A there should be NO LINE under γ=2 and before k_max~ N.	
Pg. 140, Box 4.7	defined degree distribution, like p ~k -γ, shown in **Figure 4.16a**	defined degree distribution, like pk ~k -γ, shown in **Figure 4.16a**	subscript k is missing from p.
Pg. 141, in Eq. 4.28	ηj	ηi	The subscript should be I, not j.
Pg. 169	The probability P (k) that a link	The probability P (k_i) that a link	add 'i' in subscript to k'
Pg. 171. Figure 5.5	Let us assume that the first of the two $G_1^{(t)}$ network possibilities	Let us assume that the first of the two $G_1^{(2)}$ network possibilities	replace in superscript (t) with (2).
P 172, eq. 5.6	in the nominator replace dt with k_i $\frac{dk_i}{k_i} = \frac{1}{2}\frac{dt}{t}$. (5.6)		
Pg. 174, Box 5.2	Each millisecond (10^3 s).	Each millisecond (10^{-3} s).	
Pg. 177, 5.8	After.	After [11]	last line of the caption
Pg. 180. 4th line	expect π(k) ~ k	expect π(k) ~ k2	
Pg. 184, line 2	the more likely that a degree k node is at the end of the link.	the more likely that a degree-k node is at the end of the link.	
Pg. 187	like those discussed in **Section 5.7**.	like those discussed in **Section 5.8**.	end of the second to last paragraph
Pg. 196, Eq. (5.43)	$2p_k = (k-1)p_{k-1} - kp(k) = -p_{k-1} - k[p_k - p_{k-1}]$	$2p_k = (k-1)p_{k-1} - kp_k = -p_{k-1} - k[p_k - p_{k-1}]$	
Pg. 213, Box 8.3	Box 6.3 From Fitness to a bose Gas	Box 6.3 From Fitness to a Bose Gas	
Pg. 213, Eq. 6.18	$Z_t = \sum_{j=1}^{t} te^{-\beta_t \varepsilon_j} k_j(\varepsilon_i, t, t_j)$	$Z_t = \sum_{j=1}^{t} e^{-\beta_t \varepsilon_j} k_j(\varepsilon_j, t, t_j)$	
Pg. 217, line 2	the preferential attachment function (**4.1**)	the preferential attachment function (**5.1**)	
Pg. 217, line 11	If, in the Barabási-Albert model, we replace (**4.1**) with	If, in the Barabási-Albert model, we replace (**5.1**) with	
Pg. 217, Figure 6.10	A =0.0 A=7.0	A=7.0 A =0.0	The legend on the figure is incorrect.
Pg. 220, Caption Figure 6.12	Exponential Networks: $r > r$*(A)	Exponential Networks: $r > r$*(A)	
Pg. 239, Eq. (7.9)		Remove the + sign right before the first = symbol	
Pg. 241, Box 7.2	For r < 0 the network is assortative, for r = 0 the network is neutral and for r > 0 the network is disassortative.	0 the network is assortative, for r = 0 the network is neutral and for r < 0 the network is disassortative.	
Pg. 243, Eq. 7.15	ks (N) - (〈k〉 N)1/2	ks (N) ~ (〈k〉 N)1/2	
Pg. 280	Equation (8.7) helps us understand	Equation (**8.7**) helps us understand	Eq. numbers are boldface.
Pg. 282	(**Advanced topics 8.C**)	(**Advanced topics 8.D**)	
p. 283, Table 8.1	last line last column, 0.06	replace 0.06 with 0.16	
Pg. 285	Indeed, if $\gamma \rightarrow \infty$ then $\gamma \rightarrow \infty$ them $pk \rightarrow \delta(k - k\text{min})$, meaning that	Indeed, if $\gamma \rightarrow \infty$ then $pk \rightarrow \delta(k - k\text{min})$, meaning that	
Pg. 287	Baran decided that the ideal survivable architecture was a distributed mesh-like network	Baran decided that the ideal survivable architecture was a decentralized mesh-like network	
Pg. 290		Add a space before the last paragraph: The power law distribution (8.14)….	
Pg. 291		The first paragraph should not be indented. It should start from the beginning of the line.	
Pg. 295	Given the complexity of the failure propogation model	Given the complexity of the failure propagation model	propogation à propagation
Pg. 300, Sect 8.7.2	The European power grid is an ensemble of more than 20 national power grids	The European power grid is an ensemble of 34 national power grids	
Pg. 301, Figure 8.26	for attacks for the 33 national power grids	for attacks for 33 of the 34 national power grids	
Pg. 323	frequent use Zachary	frequent use of Zachary	
Pg. 352	The Girvan-Newman benchmark consists of N=128 nodes partitioned into N=128 communities of size Nc=32	The Girvan-Newman benchmark consists of N=128 nodes partitioned into nc=4 communities of size Nc=32	
Pg. 366, Eq. 9.23	$\Sigma_l^i = 0_x^l$	$\Sigma_l^i = 1_x^l$	
Pg. 374, Eq. 9.45	In a nutshell, the first term of **(9.59)** gives	In a nutshell, the first term of **(9.45)** gives	
Pg. 375	the percolation threshold (9.20)	the percolation threshold (9.16)	
Pg. 393	characteric time	characteristic time	
Pg. 404	existence communities	existence of communities	