Graph properties:

Nodes	Edges	Global Clustering Coeff.	Average Cluster Coeff.	Assort. Degree	Assort. Nominal
3997962	34681188	0.1253	0.2843	0.0452	-0.0000

Table 1: Summary of the principal graph properties.

Degree properties:

Min	Max	Mean	Median	Variance	Standard Deviation
1	14703	14.9147	5.0000	1877.9106	43.3349

Table 2: Summary of the principal degree properties.

AIC values:

Network	Geometric D.	Poisson D.	Zeta non-free p	Zeta	Right-Truncated Zeta	Altamann D.	MOEZipf	Negative Binomial	Discrete W
Live_Journal	17058614.9963	81629798.7715	18165227.6311	16331451.6441	16277621.3151	15645728.0938	15672934.1327	15645499.9465	15586604

Table 3: Values of the AIC.

ΔAIC:

Network	Geometric D.	Poisson D.	Zeta non-free p	Zeta	Right-Truncated Zeta	Altamann D.	MOEZipf	Negative Binomial	Discrete Weibull
Live_Journal	1472010.06	66043193.8352	2578622.6948	744846.7078	691016.3788	59123.1575	86329.1964	58895.0102	0

Table 4: Values of the Delta AIC.

BIC values:

Network	Geometric D.	Poisson D.	Zeta non-free p	Zeta	Right-Truncated Zeta	Altamann D.	MOEZipf	Negative Binomial	Discrete W
Live_Journal	17058627.6556	81629811.4309	18165227.6311	16331464.3034	16277646.6338	15645753.4125	15672959.4515	15645525.2652	15586630

Table 5: Values of the BIC.

ΔBIC:

Network	Geometric D.	Poisson D.	Zeta non-free p	Zeta	Right-Truncated Zeta	Altamann D.	MOEZipf	Negative Binomial	Discrete Weibull
Live_Journal	1471997.4005	66043181.1758	2578597.376	744834.0483	691016.3787	59123.1574	86329.1964	58895.0101	0

Table 6: Values of the Delta BIC.

Estimated parameters:

Network	q	lambda	gamma_1	gamma_2	K_max	gamma_3	delta	gamma_4	delta_2	gammaNB	pNB	v	p
Live_Journal	0.067	14.9147	1.4534	1.4263	14703	0.998	0.0162	2.0178	7.0597	0.0096	0.9836	0.3978	0.4819

Table 7: Values of the estimated parameters.

Initial plots

Degree spectrum

Degree spectrum log–log scale

Degree sequence

Degree sequence log–log scale

Empirical distribution
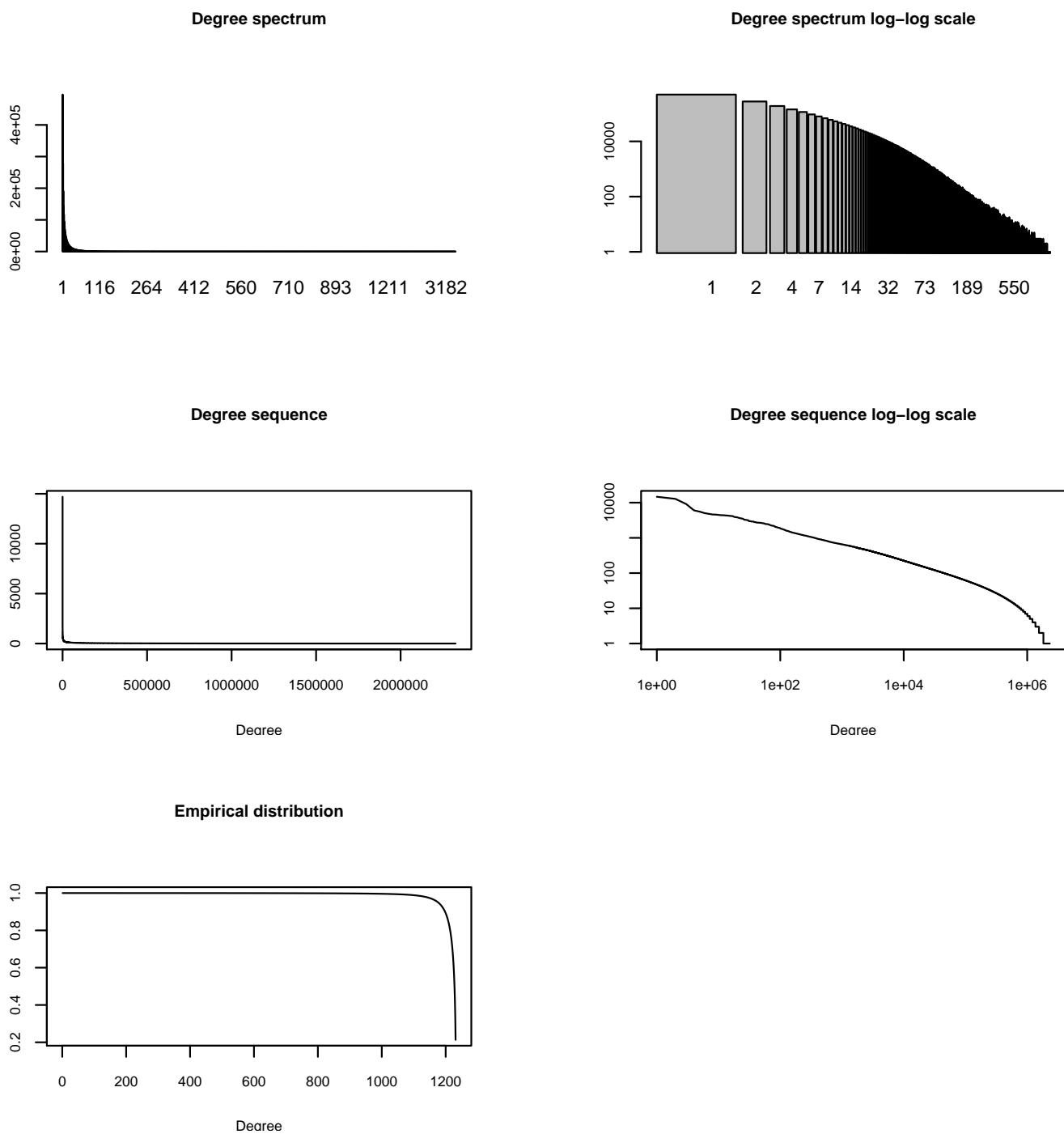
Figure 1: Initial plots.

Fitted model plots:

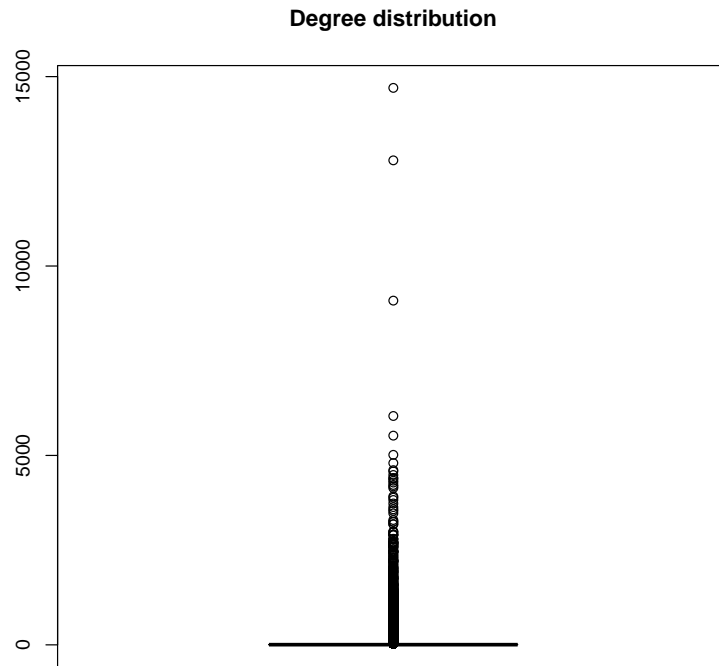**Degree distribution**

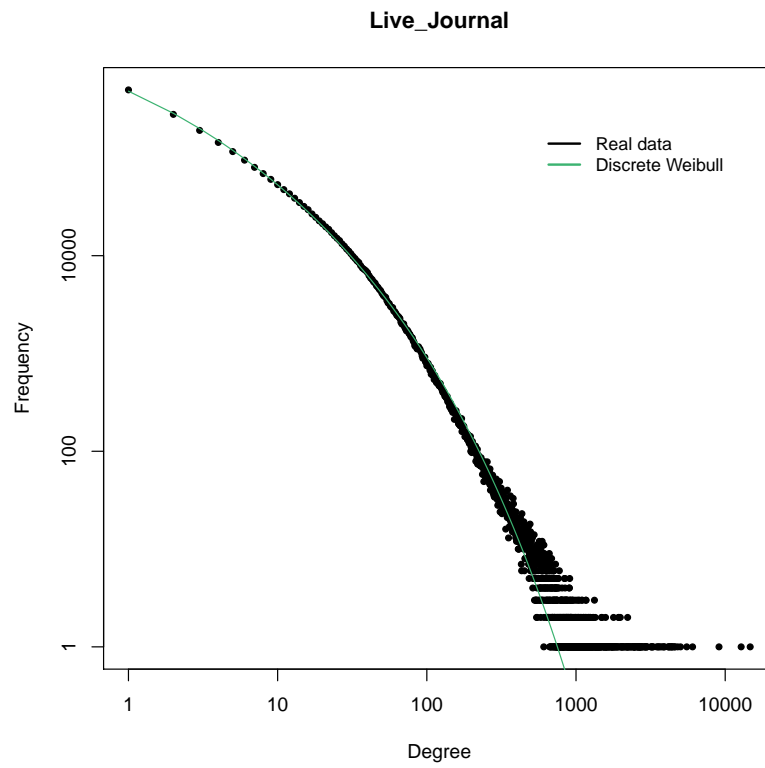Figure 2: Best Model Fitting the data.
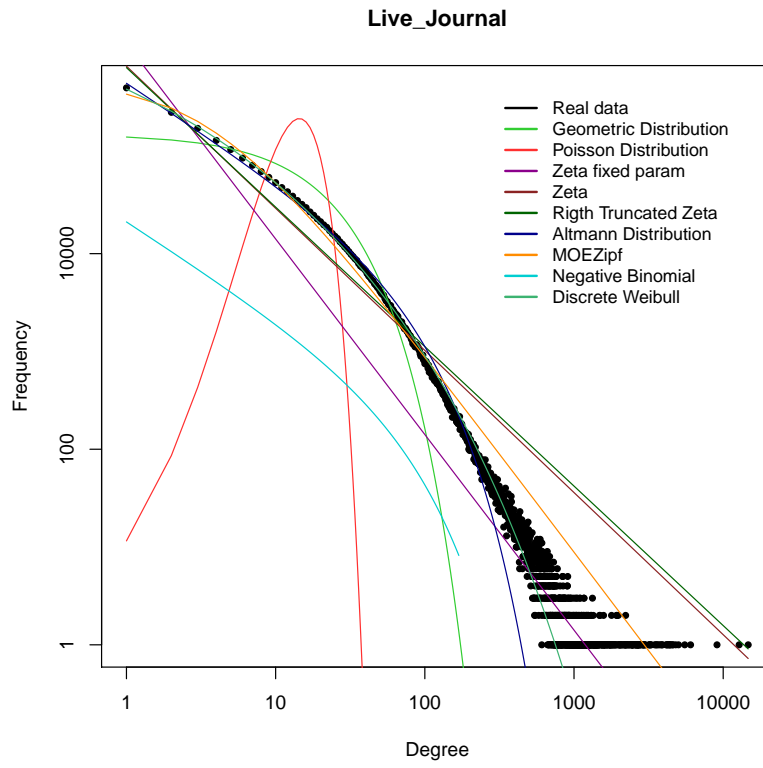
Live_Journal

Figure 3: Best Model Fitting the data.

Figure 4: Best Model Fitting the data.