# Graph properties:

Nodes	Edges	Global Clustering Coeff.	Average Cluster Coeff.	Assort. Degree	Assort. Nominal
325729	1497133	0.0877	0.2346	-0.0617	0.0183

Table 1: Summary of the principal graph properties.

# Degree properties:

Min	Max	Mean	Median	Variance	Standard Deviation
1	3445	10.8534	5.0000	1021.2717	31.9573

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 Weibul
Out_NotreDame	920600.8113	3492339.5577	1012510.9884	921095.7857	915957.8536	872341.3014	849066.498	871628.9894	859681.4738

Table 3: Values of the AIC.

# $\Delta \text{AIC}$ :

Network	Geometric D.	Poisson D.	Zeta non-free p	Zeta	Right-Truncated Zeta	Altamann D.	MOEZipf	Negative Binomial	Discrete Weibull	
Out_NotreDame	71534.3133	2643273.0597	163444.4904	72029.2877	66891.3556	23274.8034	0	22562.4914	10614.9758	

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 Weibu
Out_NotreDame	920610.6459	3492349.3923	1012510.9884	921105.6202	915977.5227	872360.9705	849086.1671	871648.6585	859701.1429

Table 5: Values of the BIC.

# $\Delta {\rm BIC}:$

Network	Geometric D.	Poisson D.	Zeta non-free p	Zeta	Right-Truncated Zeta	Altamann D.	MOEZipf	Negative Binomial	Discrete Weibull
Out_NotreDame	71524.4788	2643263.2252	163424.8213	72019.4531	66891.3556	23274.8034	0	22562.4914	10614.9758

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
Out NotreDame	0.0921	10.8532	1 4799	1 4367	3445	0.8811	0.0313	2 4215	15 6546	0.1229	0.9683	0.4944	0.5576

Table 7: Values of the estimated parameters.

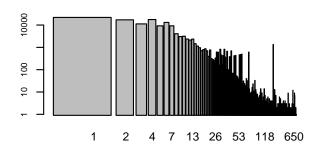
# **Initial plots**

#### Degree spectrum

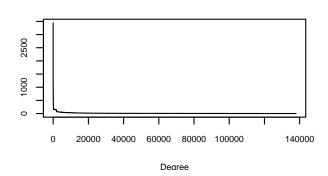
# 5000 15000

1 26 56 86 120 162 210 293 501

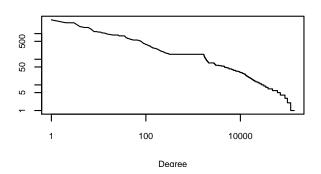
#### Degree spectrum log-log scale



#### Degree sequence



#### Degree sequence log-log scale



#### **Empirical distribution**

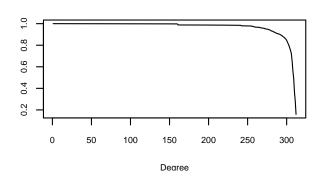
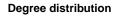


Figure 1: Initial plots.

Fitted model plots:



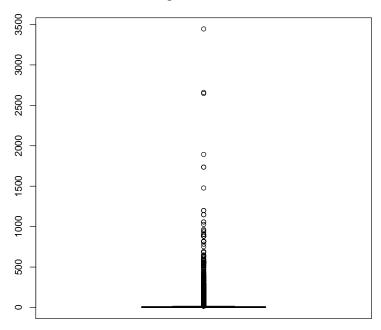


Figure 2: Best Model Fitting the data.

# Out\_NotreDame

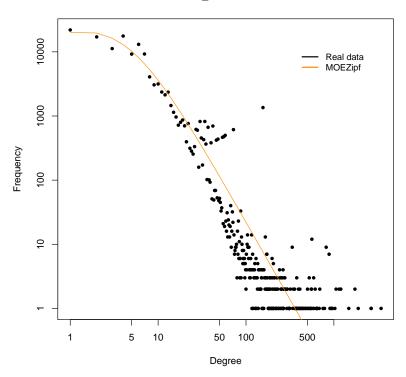


Figure 3: Best Model Fitting the data.

# Out\_NotreDame

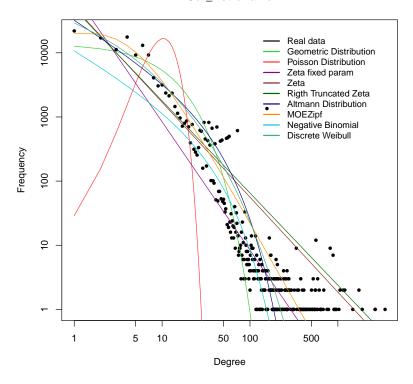


Figure 4: Best Model Fitting the data.