LET'S SAY AMEN FOR LATENT SPACE MODELS

SHAHRYAR MINHAS, PETER D. HOFF, AND MICHAEL D. WARD

Response to ?.

Date: August 17, 2016.

1. REPLICATION RESULTS

	Logit	MRQAP	LSM	ERGM	LSM (Bilinear)
Intercept/Edges	-4.44*	-4.24*	0.94*	-12.17*	-3.40*
	(0.34)		[0.11; 1.83]	(1.40)	[-4.42; -2.50]
Conflicting policy preferences					
Business vs. NGO	-0.86	-0.87*	-1.37 [*]	-1 . 11*	-1. 38*
	(0.46)		[-2.42; -0.41]	(0.51)	[-2.46; -0.49]
Opposition/alliance	1.21*	1.14*	0.00	1.22*	1.08*
	(0.20)		[-0.39; 0.39]	(0.20)	[0.72; 1.49]
Preference dissimilarity	-0.07	-0.60	-1.76*	-0.44	-0.79*
	(0.37)		[-2.60; -0.90]	(0.39)	[-1.55; -0.07]
Transaction costs					
Joint forum participation	0.88*	0.75*	1.52*	0.90^{*}	0.92*
	(0.27)		[0.87; 2.19]	(0.28)	[0.41; 1.47]
Influence					
Influence attribution	1.20*	1.29*	0.08	1.00*	1.10*
	(0.22)		[-0.41; 0.55]	(0.21)	[0.69; 1.54]
Alter's influence indegree	0.10*	0.11*	0.01	0.21*	0.11*
	(0.02)		[-0.03; 0.04]	(0.04)	[0.07; 0.15]
Influence absolute diff.	-0.03*	-0.06*	0.04	-0.05*	-0.07*
	(0.02)		[-0.01; 0.09]	(0.01)	[-0.11; -0.03]
Alter = Government actor	0.63*	0.68	-0.47	1.04*	0.55
	(0.25)		[-1.08; 0.13]	(0.34)	[-0.07; 1.15]
Functional requirements					
Ego = Environmental NGO	0.88*	0.99	-0.59	0.79*	0.68
	(0.26)		[-1.31; 0.11]	(0.17)	[-0.36; 1.74]
Same actor type	0.74*	1.12*	1.17*	0.99*	1.04*
	(0.22)		[0.63; 1.71]	(0.23)	[0.62; 1.50]
Endogenous dependencies	ملد	J.		0 *	
Mutuality	1.22*	1.00*		0.81*	
	(0.21)			(0.25)	
Outdegree popularity				0.95*	
T 41				(0.09)	
Twopaths				-0.04*	
C)A/I.d ()				(0.02)	
GWIdegree (2.0)				3.42*	
CMECD (1.5)				(1.47)	
GWESP (1.0)				0.58*	
C/MO do grapo (5 =)				(0.16)	
GWOdegree (o.5)				8.42*	
				(2.11)	

Table 1. * p < 0.05 (or o outside the 95% confidence interval).

2. CAPTURING NETWORK STUFF

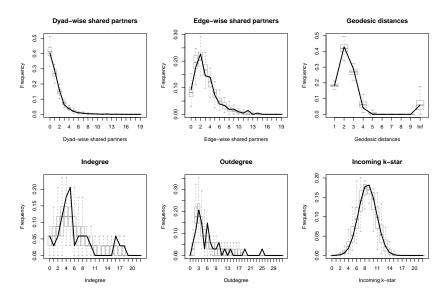


Figure 1. ERGM network stuff

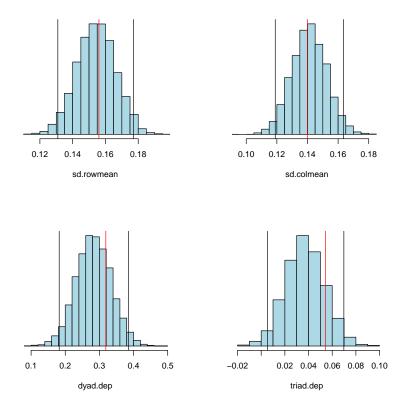


Figure 2. AMEN network stuff

3. TIE FORMATION PREDICTION

	AUC	AUC (PR)
LSM (Bilinear)	0.99	0.94
ERGM	0.91	0.70
LSM	0.92	0.67
MRQAP	0.88	0.67
Logit	0.88	0.67

Table 2. Area under the curve (AUC) comparison.

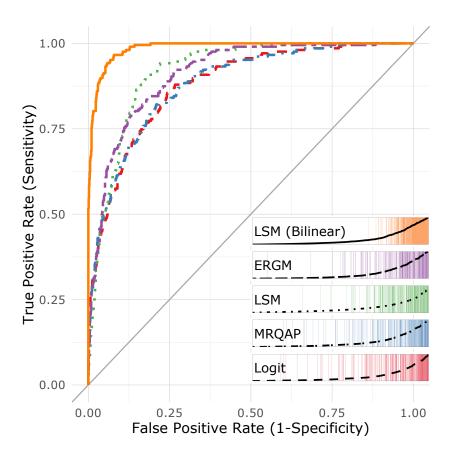


Figure 3. ROC and separation plots

SHAHRYAR MINHAS: DEPARTMENT OF POLITICAL SCIENCE

Current address: Michigan State University

E-mail address: s7.minhas@gmail.com

PETER D. HOFF: DEPARTMENT OF STATISTICS

Current address: Duke University

E-mail address: pdhoff@duke.edu

MICHAEL D. WARD: DEPARTMENT OF POLITICAL SCIENCE

Current address: Duke University

E-mail address: michael.d.ward@duke.edu

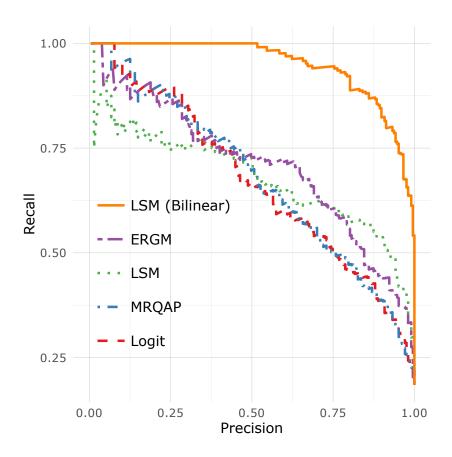


Figure 4. ROC Precision-Recall plots