

**Table S2. SMAPE values**

	$p(k)$	$p(\ell)$	$p(b)$	$C(k)$	$n(k)$	$b(k)$	$p(\lambda)$	E.T.	E.T. ( $k$ )	$p(n)$	$\ell(k)$	Total
DUNE	<b>0.47</b>	<b>0.37</b>	<b>0.36</b>	0.60	0.29	0.24	0.14	0.10	0.20	0.56	0.14	<b>3.48</b>
Vázquez	0.52	0.81	0.39	0.62	0.27	0.34	<b>0.12</b>	0.10	<b>0.15</b>	<b>0.50</b>	0.26	4.11
Berg	0.70	0.45	0.72	0.67	<b>0.15</b>	<b>0.19</b>	0.29	0.12	0.30	0.86	<b>0.06</b>	4.51
RG	0.81	0.98	0.61	0.83	0.22	0.23	0.33	0.31	0.45	0.89	0.49	6.15
MpK	0.82	0.79	0.68	0.89	0.88	0.58	0.18	0.18	0.18	0.82	0.16	6.18
ER	0.83	0.70	0.78	<b>0.53</b>	0.22	0.41	0.28	<b>0.07</b>	0.32	0.93	0.07	5.14

Symmetric mean absolute percentage error (SMAPE) of simulation versus experiment in yeast (Eq. 11). ‘E.T.’ is the error tolerance curve with random protein removal, and ‘E.T. ( $k$ )’ is the error tolerance curve with highest-degree proteins removed first. ‘DUNE’ is the model described here, ‘Vázquez’ is the DU-only model of [29], ‘Berg’ is the link dynamics model [84], ‘RG’ is random geometric [88], ‘MpK’ is the physical desolvation model presented in [52], and ‘ER’ is an Erdős-Rényi random graph [89]. For each comparison, the lowest value is shown in bold.