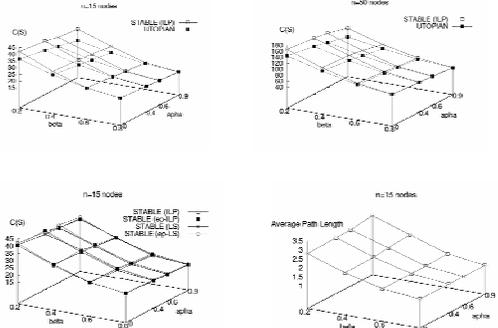
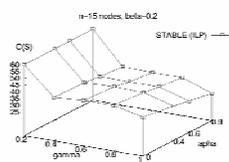


# Social Cost of Stable Wirings

## Single Capacitated

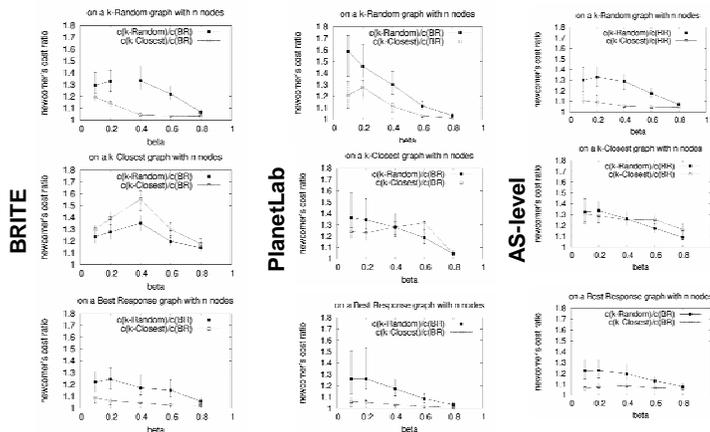


## Double Capacitated



## Experiments and Implications

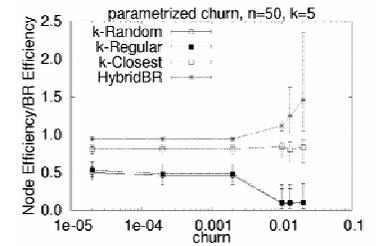
	beta=0.1		beta=0.2		beta=0.4		beta=0.6		beta=0.8	
	k-Random/BR	k-Closest/BR								
BRITE	1.44	1.53	1.52	1.84	1.38	2.07	1.28	1.46	1.09	1.16
PlanetLab	2.23	1.48	1.75	1.23	1.37	1.13	1.09	1.16	1.04	1.06
AS-level	2.04	1.9	1.83	1.61	1.58	1.39	1.24	1.23	1.12	1.16



# EGOIST : A scalable SNS-inspired System

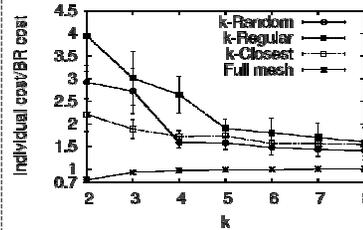


## Under Churn



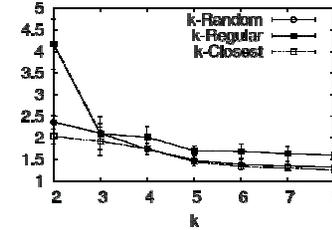
## Active Probing

Metric: Delay (via ping)



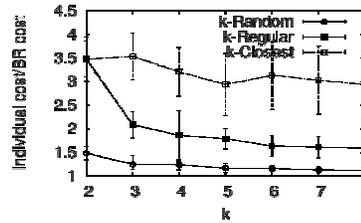
## Network Coordinates

Metric: Delay (via pydda)



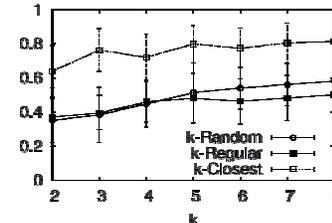
## System Load

Metric: System Load

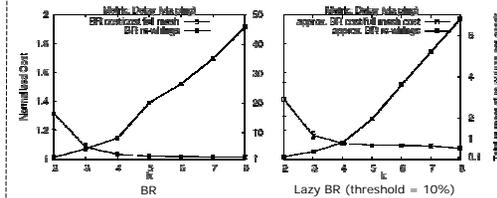


## Available Bandwidth

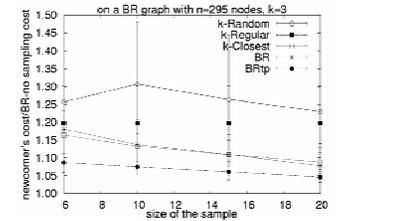
Metric: Available Bandwidth



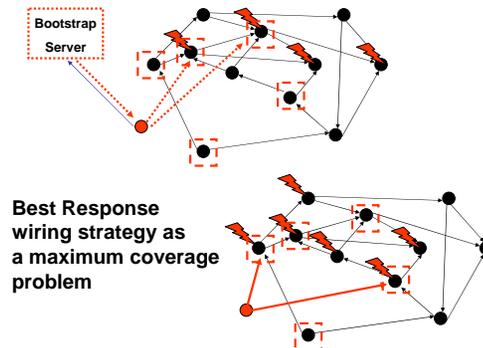
## Re-wiring Frequency



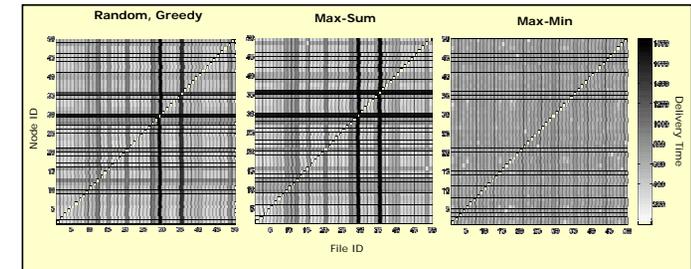
## With Incomplete Information



## Improving Search performance in Unstructured P2P systems



## n-way Broadcast



Best Response wiring strategy as a maximum flow problem

## Publications:

- [1] "Implications of Selfish Neighbor Selection in Overlay Networks" Nikolaos Laoutaris, Georgios Smaragdakis, Azer Bestavros and John W. Byers. IEEE INFOCOM 2007.
- [2] "Swarming on Optimized Graphs for n-way Broadcast" Georgios Smaragdakis, Nikolaos Laoutaris, Pietro Michiardi, Azer Bestavros, John W. Byers, and Mema Roussopoulos. IEEE INFOCOM 2008.

## References:

- [3] "EGOIST: Overlay Routing using Selfish Neighbor Selection" Georgios Smaragdakis, Nikolaos Laoutaris, Azer Bestavros, John W. Byers and Mema Roussopoulos. Under Submission.
- [4] "A bounded-degree network formation game" Nikolaos Laoutaris, Rajmohan Rajaraman, Ravi Sundaram, Shang-Hua Teng. arXiv-CoRR cs.GT/07101071.