Scaling and Growth of Complex Networks

Wednesday, June 28, 2006

Waterlink Gallery
Bell Harbor International Conference Center
2211 Alaskan Way, Pier 66, Seattle

Summary:
This event, co-hosted by Boeing and the Santa Fe Institute, will explore how established theories of biological scaling formalized by James Brown and Geoffrey West apply to technological, social, ecological and cognitive systems. Understanding the fundamental relationship between the distribution of nodes and connectors of a system is important for formulating theories of growth in networks and eventually developing predictive models of network evolution. Time is allocated to discuss how this research can be used to help understand growth in complex networks relevant to businesses and organizations.

Agenda:

8:30 – 9:00 Registration & Continental Breakfast

9:00 – 9:15 *Welcome & Introductory Remarks*, **Dick Paul,** Vice president, Strategic Development & Analysis, Phantom Works, Boeing

9:15 – 10:15 *"Overview of scaling as a window onto underlying structure and dynamics of networks,"* **Geoffrey West**, President & Distinguished Professor, Santa Fe Institute

10:15 - 10:30 Coffee Break

10:30 – 11:30 *"From empirical laws to theory: a new look at technological networks,"* **Stephanie Forrest**, Professor, University of New Mexico and Santa Fe Institute

11:30 – 12:00 Open Questions & Discussion

12:00 – 1:00 Buffet Lunch

1:00 – 2:00 *"Models of network growth and transformation,"* **Raissa D'Souza,** Assistant Professor*,* University of California, Davis

2:00 – 2:45 "*Role of scaling in developing understanding of how systems work,"* **Dr. Norman L. Johnson**, Los Alamos National Laboratory

2:45 – 3:00 Coffee Break

3:00 – 3:45 *"Social dynamics and network scaling,"* **Melanie Moses,** Postdoctoral Researcher, University of New Mexico

3:45 – 4:30 Structured discussion, led by **Dr. Norman L. Johnson,** Los Alamos National Laboratory

4:30 – 5:00 *Concluding Remarks,* **Geoffrey West**, President & Distinguished Professor, Santa Fe Institute

5:00 – 7:00 Cocktail Hour on Patio with no-host bar and complimentary appetizers