

Abstract Submitted
for the MAR07 Meeting of
The American Physical Society

Rich-club ordering in complex networks ALESSANDRO FLAMMINI, VITTORIA COLIZZA, MARIANGELES SERRANO, ALESSANDRO VESPIGNANI, Indiana University, CX GROUP TEAM — Uncovering the hidden regularities and organizational principles of networks arising in physical systems ranging from the molecular level to the scale of large communication infrastructures is the key issue for the understanding of their fabric and dynamical properties. The “rich-club” phenomenon refers to the tendency of nodes with high centrality, the dominant elements of the system, to form tightly interconnected communities and it is one of the crucial properties accounting for the formation of dominant communities in both computer and social sciences. The talk will provide the analytical expression and the correct null models for the measurement of the rich-club ordering and its relation with the function and dynamics of networks in examples drawn from the biological, social and technological domains.

Alessandro Flammini
Indiana University

Date submitted: 06 Dec 2006

Electronic form version 1.4