You are cordially invited to a Computational Genomics Seminar:

Time: Wed, 18/4/2012, 11:15

Place: Schreiber 309

# Speaker: Roded Sharan, School of Computer Science, Tel Aviv University

Title:  **Reconstructing Boolean Models of Signaling**

Abstract: Since the first emergence of protein-protein interaction net-works, more than a decade ago, they have been viewed as static scaffolds of the signaling-regulatory events taking place in the cell and their analysis has been mainly confined to topological aspects. Recently, functional models of these networks have been suggested, ranging from Boolean to constraint-based ones. However, learning such models from large-scale data remains a formidable task and most modeling approaches rely on extensive human curation. Here we provide a generic approach to learning Boolean models automatically from data. We apply our approach to growth and inammatory signaling systems in human and show how the learning phase can improve the fit of the model to experimental data, remove spurious interactions and lead to better understanding of the system at hand.

Host: Ron Shamir, School of Computer Science, Tel Aviv University ([rshamir@post.tau.ac.il](mailto:rshamir@post.tau.ac.il))