Systems Biology: The Use of Control and Dynamical Systems Theory to Study Biological Signaling Networks

Systems biology aims to rigorously model and analyze the dynamic processes and feedback loops underlying life itself. Potential implications include the extension of life span, the cure of diseases, and the design and construction of engineered biological systems.

The workshop will be a great opportunity to learn about this fascinating field of science. It is intended for engineers and graduate students in engineering with a background in systems and control theory. Attendees will receive a complete electronic set of the talks.

The main speaker is Prof. Pablo A. Iglesias. Pablo received a B.A.Sc. in Engineering from the University of Toronto, and a Ph.D. in Control Engineering from Cambridge University. Since then he has been on the faculty of the Johns Hopkins University, where he is currently the Edward J. Schaefer Professor of Electrical Engineering. He also holds appointments in the Dept. of Biomedical Engineering, and Applied Mathematics & Statistics. He has had visiting appointments at Lund University, the Weizmann Institute, and the Johns Hopkins School of Medicine and the Max-Planck Institute for the Physics of Complex Systems. Dr. Iglesias has authored over 100 research articles as well as the book: Minimum Entropy Control for Time-Varying Systems (Birkhäuser, 1997), and he is a co-editor of Control Theory and Systems Biology (MIT Press, 2009). He received the Charles E. Ives Best Paper award for the Journal of Imaging Technology and the George E. Owen Teaching Award at Johns Hopkins University. He is a Distinguished Lecturer of the IEEE Control Systems Society.

The workshop will be supplemented by two related lectures. Prof. Michael Margaliot from the Faculty of Electrical Engineering, Tel Aviv University, will describe the ribosome flow model, and Prof. Nir Gov from the Weizmann Institute will describe a theoretical model for cell migration.

Prof. Michael Margaliot, Tel Aviv University Workshop organizer
Systems Biology: The Use of Control and Dynamical Systems Theory in the Study of Biological Signaling Networks

בנוסף, "דייגלא" המ(glm
יומ ב', יוני 2015

(CS & AES Chapters) שיאל ישראלי

יום העיון נערך בחסות משותפת של IFAC ו-{A}ב"א

http://iaac.technion.ac.il/