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Vortragsankündigung

Seminar Regelungssysteme LV 0430L654

Montag, 12. November 2012, 16:00 Uhr
Vortragsort: EN 223

Fabio Baldissera

Universidade Federal de Santa Catarina, Florianopolis, Brasil

“Application of Supervisory Control theory to Guide Cellular Dynamics”

In this talk, I will show a theoretical framework, based on the Supervisory Control Theory, to guide the dynamics of genetic regulatory networks. The system to be controlled is abstracted by a discrete-event model and the devised supervisor is assumed to be realized as a biological network, that is, it acts autonomously inside the cellular environment. The formal synthesis of supervisors to control the dynamics of cells has several applications, in fields that range from the optimization of biofuel production to the treatment of diseases, such as cancer.