1145-92-1853 **Elena S Dimitrova***, edimit@clemson.edu. *Network modeling through multistate canalization.*

Boolean canalization, a type of hierarchical clustering of the inputs of a Boolean function, has been studied in the context of network modeling where each layer of canalization adds a degree of stability in the dynamics of the network. Multicellular populations give rise to emergent features such as patterns based upon the collective communication between neighboring and distant cells. This talk will present a recently introduced generalization of canalization to multistate functions and discuss the role of canalization in the study and control of multicellular populations. (Received September 24, 2018)