

Asynchronous networks and event driven dynamics

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Abstract: We describe a framework for the analysis of networks for which there may, for example, be time varying connection structure and nodes may stop and later restart (strongly non-analytic). We present a factorization of dynamics theorem that enables a quite precise description of network dynamics in terms of component networks (for example, motifs in Alon's sense) and offers interesting new directions for the study of bifurcations and network statistics. Joint work with Chris Bick (Rice and Exeter).