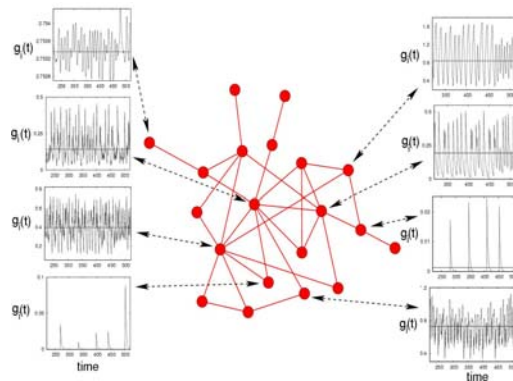


## COMPETITION OF ACTIVATORY-INHIBITORY INTERACTIONS IN COMPLEX NETWORKS

L.M. Floría<sup>1</sup>, J. Gómez-Gardeñes<sup>1</sup>, Y. Moreno<sup>1</sup>

(1) Instituto de Biocomputación y Física de Sistemas Complejos (BIFI). Universidad de Zaragoza.  
(floria@unizar.es, gardenes@unizar.es, yamir@unizar.es)

A simple model of activatory-inhibitory interactions controlling the activity of agents (substrates) through a “saturated response” dynamical rule in a scale-free network is studied. After discussing the most remarkable dynamical features of the model, namely **fragmentation** and **multistability**, we present a characterization of the temporal (periodic and chaotic) fluctuations of the quasi-stasis asymptotic states of network activity.



The double (both structural and dynamical) source of entangled complexity of the system temporal fluctuations, as an important partial aspect of the *structure-function* correlation problem, is further analyzed in light of the numerical results, with a view on potential applications of these general results.

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