

Announcement: Focus Issue on “Mesoscales in Complex Networks”

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Chaos announces a Focus Issue on **Mesoscales in Complex Networks**. The complex networks discipline includes a well established theory and an increasing set of analysis tools through which the interactions among the elements of a graph can be represented and studied. This Focus Issue aims to provide the Nonlinear Science community in general, and the Complex Systems community in particular, with the state of the art on the study of complex networks at the meso-scales level.

Until recently the bulk of the published work has been restrained to either the local scale structure (through statistical distributions) or the macroscopical properties (with global parameters) of the network, but any of these two levels of description can apprehend the relevance of the intermediate modular scale. Nowadays, this mesoscale level has become an important topic of research, where many open questions still need to be answered.

Specifically, this Focus Issue will consider the following aspects that should be addressed in order to provide a full vision of the subject:

(1) Definitions of mesoscales and communities in complex networks, and the development of methods for their identification and classification.

- (2) Introduction of a suitable framework for describing and detecting topological and functional overlapping between communities.
- (3) Modeling of growing mechanisms able to provide a description of the evolution processes involved in the formation of mesoscales in a complex network.
- (4) Dynamics on modular networks: the role of mesoscales in the production of a collective and coordinated dynamics (i.e., the segregation-integration problem).
- (5) Interplay between the different scales in a complex network: hierarchical organization of the structure and dynamics.
- (6) Applications in biological, technological and social networks.

Individuals wishing to submit contributed papers for consideration for publication in this issue should submit them to the journal at <http://chaos.peerx-press.org> prior to the submission deadline of **15 November 2010**.

The authors should indicate in their cover letter their desire to have this article considered for the Focus Issue [to be published in *Chaos* **21** (3) (2011)].