Physics > Data Analysis, Statistics and Probability

Complex networks: new trends for the analysis of brain connectivity

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Today, the human brain can be studied as a whole. Electroencephalography, magnetoencephalography, or functional magnetic resonance imaging techniques provide functional connectivity patterns between different brain areas, and during different pathological and cognitive neuro-dynamical states. In this Tutorial we review novel complex networks approaches to unveil how brain networks can efficiently manage local processing and global integration for the transfer of information, while being at the same time capable of adapting to satisfy changing neural demands.

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