



Centro Interdipartimentale "L.Galvani"

**Avviso di Seminario**

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# The growth of cities and neural networks

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**Auletta Teorici II piano**

**Dipartimento di Fisica e Astronomia via Irnerio 46**

Spatially embedded complex networks, such as nervous systems, the Internet, and transportation networks, generally have nontrivial topological patterns of connections combined with nearly minimal wiring costs. We report here the empirical analysis of two databases describing respectively: 200 years of evolution of the road network in a large area located north of Milan (Italy), and the growth of the nervous system of the *C. elegans* from the moment of fertilization to adulthood. We discuss the basic mechanisms that drive the evolution of such two spatial networks.

