

AVVISO DI SEMINARIO

Martedì 3 novembre alle ore 15:00, presso l'Aula Riunioni del Dipartimento di Ingegneria dell'Informazione dell'Università degli Studi di Siena (via Roma 56, Palazzo San Niccolò - Torre Rossa) il Dott. Sylvain Arlot (CNRS, Willow Project-Team) terrà un seminario in inglese dal titolo:

Study of the Yoccoz-Birkeland Population Model

Abstract. We will study in this talk an infinite-dimensional dynamical system proposed by Yoccoz and Birkeland for modeling the population dynamics of some small rodents. First, it is shown that an attractor exists in a large domain of the parameter space. Then, a simulation experiment describes possible behaviors of the dynamical system, in particular Henon-type strange attractors, but also a seemingly new kind of attractor. The complexity and the causes of the latest attractor are studied from both geometrical and dynamical points of view. This study shows that chaotic dynamics can occur in population dynamics with a constant environment (that is, with the same seasonal variations each year), because of the combination of strong density-dependence of the growth rate with a latency effect.

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