Wednesday, March, 19th, 2025 – 12.30 pm Bm room – Biology department



seminar for Quantitative Biology Master degree students

Computational investigation of biological systems: simulation, data analysis and Machine Learning approaches

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A wide set of interesting problems in medicine and biology can be effectively tackled with computational methods, with a high gain in terms of knowledge, speed and scientific insight. Notable examples include:

- systems which can be simulated, such as the behavior of biopolymers in solution
- large-scale data analysis, typically of experimental datasets
- Machine Learning methods either to make predictions (like predicting RNA structure from its sequence), or for classification tasks (for example in automated inspection of medical images)

I will cover these topics, also discussing some examples from my research activity.

