

*IPM-POLYTECHNIQUE-WPI Workshop on Bioinformatics and Biomathematics,  
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## Complex Networks of Biomolecular Interactions

(3 Lectures)

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The advent of high-throughput biology in the last decade deeply affects the field of biological modeling and simulation. Massive data are now available that allow a more systematic approach of biological functions. This three-hour tutorial will explore the early applications of complex system approaches to networks of biomolecular interactions. It will also provide some background on the questions and methods of this new Biology.

### **Content:**

- Description of the interacting partners and of their interaction
- Methods to obtain a network of interactions
- Global structure of the network of interactions
- Local structure
- Spatial aspects
- Dynamics
- Computational modeling
- Control