## Antonio Loria (Saclay)

Title. Dynamic consensus under bias measurement

**Abstract.** This talk deals with the analysis and control of networked systems, with the objective of reaching consensus. That is, a steady state in which all interconnected systems are stabilized in the same equilibrium. This equilibrium state depends on the initial conditions of each one, but also on the topology of the network, the dynamics of the systems and other aspects. We concentrate on consensus of linear systems. Firstly, of simple integrators and in a second part, homogeneous linear systems.

In addition, the problem of dynamical consensus is considered. This corresponds to the state in which synchronized systems adopt a common dynamical behavior, which is not limited to the equilibrium state. Finally, these problems are addressed in the context of a network whose systems are subject to erroneous measurements. This is a scheme similar to that of control of systems under attack that is solved with estimation techniques similar to those of nonlinear observer design and adaptive passivity control.