Ph.D. Course in Materials Science and Nanotechnology

University of Milano-Bicocca, Department of Materials Science, via Cozzi 55, 20125 Milano

October 14, 2019 – 2.30 p.m.

Seminar room - Department of Materials Science U5

Glenn Solomon

Joint Quantum Institute, National Institute of Standards and Technology
& University of Maryland, USA

Semiconductor quantum-dot single photon sources

Non-classical light will be used in a variety of quantum-enhanced measurements such as imaging and metrology, and quantum measurements and quantum networking. One type of nonclassical light is the single photon source, a light source that provides at most one photon at a time. One of the brightest single photon source is engineered from epitaxial single semiconductor quantum dots in optical cavities. I will discuss how these sources are made and characterized — particularly their nonclassical characteristics. I'll compare them to other sources, and discuss how they might be used, in particular in quantum photonics.

PhD students and all interested in the seminar are kindly invited to participate.

The PhD Coordinator
Prof. Marco Bernasconi