



Prof. Stefan Maier

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Hosted by MRSEC IRG 3

Tuesday July 3, 2012

10:30am Reception, Ryan Hall 4003

11:00am Seminar, Ryan Hall 4003

Nanoplasmonics and Metamaterials – bringing photonics to the nanoscale

Photonics has tremendous potential for communication, sensing, imaging and a myriad other tasks, but light is challenging to control, whether we require to store it, or use it to address objects less than the wavelength in size. New designer materials, based on metallic nanostructures, allow us to marry photonics with nanotechnology, offering a way to break the diffraction limit of light via controlled excitation of surface plasmon modes. This seminar will present advances in our fundamental understanding of nanoplasmonic excitations, particularly at the boundary between classical and quantum physics. Taken together, nanoplasmonics and metamaterials show the promise for step changes in all areas of science and technology where control over light is a prominent ingredient, and applications in quantum optics, nanometrology, green energy, biosensing, and light harvesting will be discussed.

Questions - mrc@northwestern.edu 847/491-3606