

SINAM NANO SEMINAR

Center for Scalable and Integrated
Nano Manufacturing (SINAM)

presents



Controlling Optical Near Fields in Nanostructured Materials

Dr. Javier Garcia de Abajo

Friday, September 21, 2007

4:00 - 5:00 pm

3110 Etcheverry Hall

Abstract

The control of the flow of light at the nanoscale has attracted considerable interest over the past few years. Truly nanometer control is actually possible via localized states such as plasmons, which have given rise to the active field of plasmonics. Some basic properties of plasmons in nanoparticles and in nanopatterned surfaces will be reviewed in this talk. Phenomena such as plasmon hybridization, signal propagation, and extraordinary optical transmission will be discussed. Finally, energy transfer during interaction with ultrashort laser pulses will be considered and compared to the interaction of fast electrons with photonic nanostructures.

Dr. F. J. García de Abajo received his PhD from the University of the Basque Country in 1993, where he was Associate Professor until 1997. FJGA was Research Fellow at Lawrence Berkeley National Laboratory during 1997-2000 and he is currently working at the Spanish Scientific Research Council (CSIC) as Senior Scientist. FJGA is Fellow of the American Physical Society and he has co-authored over 120 articles, including papers in journals such as Science, Nature, Nature Physics, and Physical Review Letters.

****Refreshments provided****

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