

Recent progress in the description of excited state properties of liquids and nanostructures

Giulia Galli

Department of Chemistry, University of California Davis, Davis CA 95616, USA

Recent progress and open problems in the description of excited state properties of liquids (in particular water) and nanostructures (in particular Si rods and nanoparticles and simple organic molecules on gold surfaces) will be discussed. Calculations will be presented, that are based on many body perturbation theory, in particular GW, and approximate treatments of dielectric matrices.