Nondipole ionization effects in excited atoms

Ingjald Pilskog

University of Bergen, Bergen, Norway

With the work on new super-intense, high-frequency lasers, a new interest in the nonpertubative driving of atoms and molecules have arisen. It have lately been identified a unique nondipole 3rd lobe in the angular distribution of ejected electron, during studies of ionization of H(1s) by such lasers. It is interesting to look for this effect in excited H atoms and Rydberg atoms, since it will be easier to seek a experimental confirmation for such cases.