ID de Contribution: **1** Type: **Non spécifié**

Isolated core excitation of high-orbital-quantum-number Rydberg states of ytterbium

jeudi 4 mars 2021 11:00 (1 heure)

Ryderg atoms offer an ideal platform for the study of long-range interacting systems. However usual techniques for imaging and cooling are unavailable in alkali Rydberg atoms. Our approach rely on the use of a two-optically-active-valence-electron atom such as ytterbium. Ionic core transitions of this atom offer new perspectives for optical manipulation in the Rydberg state. I will present work on the isolated core excitation of ultra cold ytterbium Rydberg atoms of high orbital quantum number. The extracted energy shifts and autoionization rates are in relatively good agreement with a model based on independent electrons taking into account interactions with a perturbative approach.

Orateur: LEHEC, Henri (SYRTE)