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Elastic scattering of halo projectiles at low energies

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Light neutron rich nuclei such as 6He and 11Li have a pronounced halo structure with very low binding energies. These features have consequences in the shape of their elastic scattering angular distributions as well as in the total reaction cross sections. We will present experimental data of elastic scattering and reactions induced by these light exotic nuclei on targets of different masses.
The angular distributions have been analysed by four-body CDCC (Continuum Discretized Coupled Channels) calculations, and also by a simple diffractive model which displays some interesting interference phenomena. The total reaction cross sections will be compared in a systematics involving exotic and stable projectiles.

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Classification de Session: Nuclei Close to Drip Line