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Abstract for an Invited Paper  
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**Atomic techniques for nuclear structure physics**

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There are few properties of atomic nuclei more fundamental than their shape, size and spin. Laser spectroscopy offers a highly sensitive, non destructive method of probing these properties by utilising the hyperfine interaction. This interaction between the nucleus and its surrounding electrons allows for a variety of highly precise, efficient atomic techniques to be employed whilst causing minimal disturbance to the nucleus being studied. When carried out at a radioactive beam facility where long chains of isotopes are available this results in a detailed knowledge of the evolution of the nuclear shape from stability out to the extremes of the nuclear chart. This talk will cover several different laser spectroscopy techniques currently in use. These include collinear laser spectroscopy as well as laser probing of radioactive atoms confined within a Magneto-optical trap. In addition the extraction of nuclear parameters such as ground state moments and mean squared charge radii from the measured atomic spectra will be explained.