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Laser spectroscopy of neutron deficient gallium isotopes.

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Laser spectroscopy has been performed on isotopes of gallium at ISOLDE using the gas-filled linear Paul trap ISCOOL. Ground state nuclear spin values, magnetic dipole moments, electric quadrupole moments and mean-square charge radii have been extracted for isotope masses in the range A=63 to 74. The experiment was performed to determine the potential development of a proton skin in the neutron deficient Ga isotopes. The ground state spin of 63Ga was measured and the change in charge radius from 71Ga was extracted. This talk will present the results from the neutron deficient Ga isotopes and present charge radii measurements across the gallium isotope chain from A=63 to 82.

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