Recent studies of the β-decay of ^{11}Li at ISAC/TRIUMF

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In the past few years, various aspects of the very complex β-decay scheme of halo nucleus ^{11}Li were investigated at ISAC/TRIUMF, making use of the most intense to-date ^{11}Li beam in the world.
This talk will primarily focus on a study done at the 8pi beta-decay spectrometer, an array of 20 Compton-suppressed HPGe detectors and 20 plastic scintillators for beta-particle detection. Doppler-broadened lineshapes resulting from the γ-decay of excited states of ^{10}Be populated by β-delayed neutron emission are analyzed using Monte Carlo simulations. New neutron decay branches are shown to contribute to the decay of ^{11}Li. Results, comparison with previous works (in particular with another work done at ISAC by Hirayama et al.), as well as implications for the β-decay of the ^{11}Li halo neutrons will be discussed.
Another experiment performed at ISAC by Raabe et al. that studies the charged particle decay channels will also be briefly discussed.

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