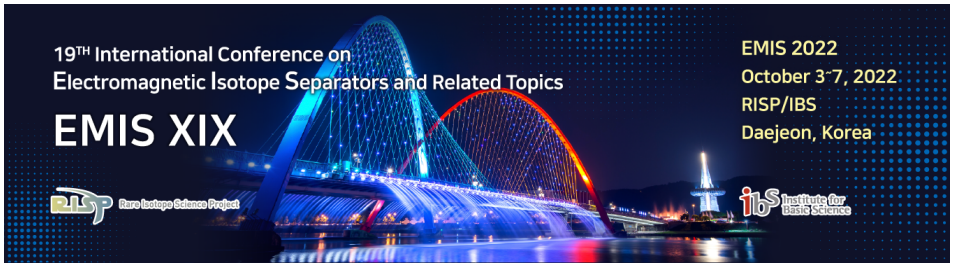

Contribution ID: **60** Type: **Oral Session**

The PUMA experiment at CERN

Thursday, 6 October 2022 15:50 (20 minutes)

The main goal of the PUMA (antiProton Unstable Matter Annihilation) experiment is to use antiprotons as a tool to investigate properties of exotic nuclei. For this, antiprotons produced at the AD/CERN and decelerated by the ELENA storage ring will be captured, cooled and transported to the ISODLE facility where the antiprotons will be mixed with short lived isotopes. During this process, an antiproton can be captured by the nucleus and will subsequently annihilate with a neutron or a proton at the surface of the nucleus itself. The fingerprint of this annihilation will be measured using a time-projection-chamber. With this knowledge of the ratio of protons to neutrons on the outermost part of the nuclei distribution, phenomena like a neutron or a proton halo or neutron or proton skins can be investigated.
This contribution will give an overview of the PUMA experiment, present its status and highlight some of the main physics goals

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