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Decay spectroscopy of $N < Z$ nuclei around ^{100}Sn[1] JOOCHUN (JASON) PARK, Univ of British Columbia, EURICA COLLABORATION — Many interesting topics in both nuclear structure and nuclear astrophysics converge on the doubly-magic nucleus ^{100}Sn and nuclei in its vicinity. Among them are the boundaries of proton dripline, the effect of pn interaction in self-conjugate nuclei, and the decay properties required for rp-process calculations in nucleosynthesis models. Despite many studies, experimental knowledge of these nuclides has remained scarce due to low production cross sections and a lack of intense beams. However, record quantities of exotic $N \simeq Z$ isotopes around ^{100}Sn were produced at RIKEN Radioactive Isotope Beam Factory, via fragmentation of a ^{124}Xe beam on a thin ^{9}Be target. Based on the obtained data, ^{89}Rh and ^{93}Ag have been confirmed to be proton unbound [1]. Half-lives of isotopes near the proton dripline will be presented with improved precision compared to literature values. In addition, strategies to determine Q_β for ft values, and consequently the Fermi/Gamow-Teller transition strengths of these isotope decays will be discussed. [1] I. Celikovic et al., Phys. Rev. Lett. 116, 162501(2016).

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