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**Study of Maris polarization in neutron rich nuclei<sup>1</sup>** FNU SHUBHCHINTAK, CARLOS A. BERTULANI, Texas AM Univ - Commerce, T. AUMANN, GSI, Darmstadt, Germany — In quasi-free (p, 2p) reactions, which are the powerful tool to study the nuclear spectroscopy, the Maris polarization can be defined as the difference in polarization of the ejected proton when it is ejected from  $j = l + s$  or from  $j = l - s$  orbital. In fact, this results from the combined affects of absorption, the spin-orbit part of the optical potential and the spin-dependence of the nucleon nucleon interactions. We will present a theoretical study of the Maris polarization effect in neutron rich nuclei in order to assess the information on the structure of exotic nuclei. In particular, we will explore the dependence of the polarization effect on neutron excess and neutron-skin thickness. We will also discuss the uncertainties in the calculations due to the various NN interactions and optical potentials.

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