Abstract Submitted
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Quest for the fourth neutrino with SOX[1] JELENA MARICIC[2], University of Hawaii at Manoa — Both accelerator and reactor based neutrino experiments show indications of neutrino changing oscillations at a very short baseline, different from the standard three neutrino flavor mixing picture. Placement of the PBq antineutrino generator 144Ce-144Pr (followed by monoenergetic 51Cr neutrino generator) in the close vicinity of the Borexino liquid scintillator antineutrino detector, provides a unique opportunity to test the short baseline hypothesis for the actual L/E oscillation signature. The project is called SOX (Source in Borexino detector). We will present the physics potential of the experiment, current status of the source production and plans for the deployment.

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