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A Phenomenological Model for Electron Kinematics in the Project 8 Experiment ALI ASHTARI ESFAHANI, University of Washington, PROJECT 8 COLLABORATION — Project 8 is a tritium endpoint mass experiment aiming for sensitivity to the whole neutrino mass range allowed by the inverted hierarchy. The proof of concept for Cyclotron Radiation Emission Spectroscopy (CRES) as a novel technique for measuring electron energies has been demonstrated through spectroscopy of monoenergetic 83m Kr lines. We present the developments in understanding the electron kinematics in magnetic traps which will further improve our already exceptional energy resolution.

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