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XUV-driven Rabi oscillations with the giant resonance in xenon STEFAN PABST, CFEL, DESY and ITAMP, Harvard-Smithsonian CFA, DAOCHEN WANG, CFEL, DESY and Department of Physics, University of Cambridge, ROBIN SANTRA, CFEL, DESY and Department of Physics, University of Hamburg — We look into the possibility of driving Rabi oscillations in the XUV regime. To do so, we exploit the unusually large dipole transition strength in xenon around 100 eV, which is also responsible for the well-known giant dipole resonance. We show what kind of (FEL) pulses are required to achieve a Rabi period shorter than the lifetime of the giant resonance states. Ways how to detect these fast Rabi oscillations in experiment are discussed.

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