

Abstract Submitted
for the APR11 Meeting of
The American Physical Society

Gamma background discrimination in the XENON100 experiment¹ ANTONIO MELGAREJO, Columbia University, XENON100 COLLABORATION — Direct dark matter detection experiments rely on the ability to have an expected background close to 0 in order to be able to identify possible WIMP signals. Among the multiple strategies to achieve this goal, most of the experiments use background reduction techniques which exploit the difference between electron-like signal (most radioactive backgrounds) and neutron-like signals (neutrons and WIMPs). In this talk we will show the studies and measurements within the XENON100 experiment to distinguish signals from electrons and neutrons by comparing their light to signal ratio. A straightforward prediction of this work is the amount of events expected in the dark matter region in this experiment

¹We gratefully acknowledge support from NSF, DOE, SNF, the Volkswagen Foundation, FCT and STCSM. We are grateful to the LNGS for hosting and supporting the XENON program

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Date submitted: 14 Jan 2011

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