APR16-2016-030043

Abstract for an Invited Paper
for the APR16 Meeting of
the American Physical Society

A new era in dark matter direct detection

ELENA APRILE, Columbia University

Direct detection of Dark Matter particles is about to enter a new era with next-generation experiments using a variety of targets in the mass range of hundreds to thousands kilograms. From improved bolometers at mK temperature to large homogeneous detectors filled with liquid argon or liquid xenon as scintillators and ionizers, the field is poised to see a dramatic improvement in the sensitivity to WIMP-nucleon interactions before the end of this decade. This talk will review the status of these experiments, concentrating on those which are about to start data-taking in the very near future.