

Sub-eV 2016



Wednesday, December 7, 2016 - Friday, December 9, 2016

LBNL

Scientific Program

The aim of this workshop is to explore new detection techniques that can be sensitive to low mass Dark Matter (DM). While current and approved direct and indirect detection experiments will probe large parts of the viable parameter space for weak scale WIMP type DM in the next 5 to 10 years, theoretical developments have emphasized that compelling models of DM may be found beyond the weak scale, especially where the dark sector is complex and displays new dynamics. These models can extend the viable mass range of particle DM candidates down to the keV lower bound from cosmological observations. At the opposite extreme, axion searches cover mainly the more strongly interacting end of the axion mass range. New detection techniques to access lower single particle mass would open access to currently unexplored phase space. The common thread for such potential new techniques is detection of very low energy in macroscopic objects: below 1 eV with essentially no lower bound, hence the “sub-eV” title of this workshop. As space is limited, attendance is by invitation only.