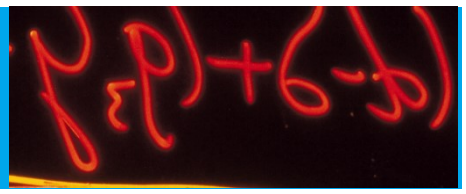
DESY
Particle and Astroparticle Physics Colloquium



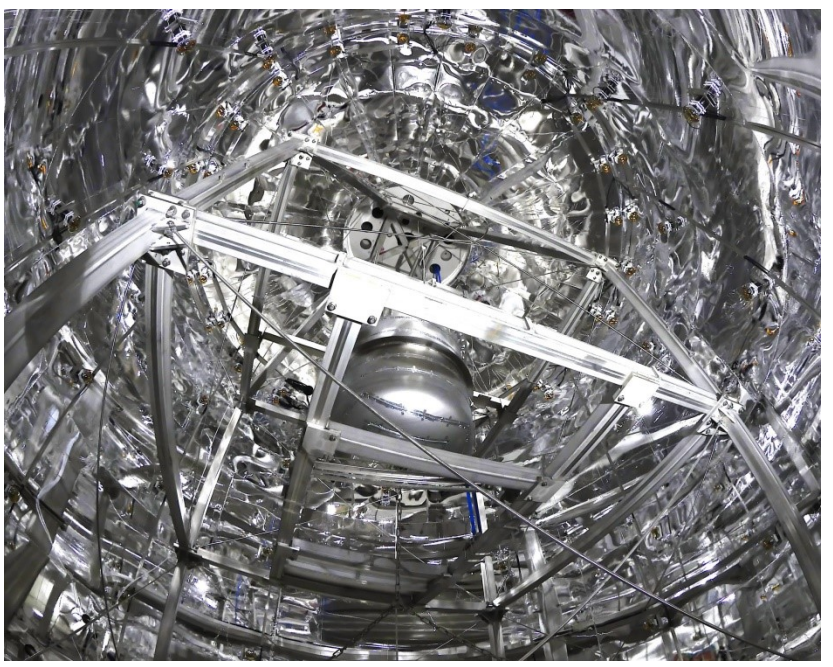
VIDEO Colloquium:

The XENON Dark Matter Project: Recent Results and Future Plans.

Tuesday, 30 June, 2020 **Webcast 16:45 h**

Marc Schumann (University of Freiburg)

The XENON project employs ultra-sensitive time projection chambers (TPCs) filled with cryogenic liquid xenon (LXe) to search for rare events. While its primary science goal is the search for dark matter in form of WIMPs, the low background and the low threshold of the experiment also allow exploring other science channels. I will present selected results from the XENON1T detector representing the state of the art of the LXe technology. Among these are world-leading limits on WIMP-nucleon scattering and an unexpected excess of low-energy electronic recoil events with a significance of >3σ. The origin of the excess can be further probed with the new instrument XENONnT which is currently under commissioning. The ultimate LXe TPC, the DARWIN observatory, will probe the entire experimentally accessible WIMP parameter space and will also explore neutrino channels.



Please note: This is a VIDEO COLLOQUIUM!

Connection details at https://desy.zoom.us/j/99616528733