

# HEPL SEMINAR

## WHO

**Xin Xiang,  
Princeton University**

“Results from DarkSide-50 Experiment”

## WHAT

Located at the LNGS, Italy, DarkSide (DS) is a dark matter search project, which features a dual-phase Time Projection Chamber as the WIMP detector, surrounded by an organic liquid-scintillator neutron veto and a water-Cherenkov muon veto. The current DS-50 has been taking data since 2013, initially with atmospheric Ar (AAr) and then, starting in April 2015, with Ar extracted from underground sources (UAr). Since August 2015, DS-50 have accumulated 540+ live-days of blinded data with the UAr target as of November 2017, and we expect to publish the blind analysis in the month of February 2018. I will discuss the background studies in the blind analysis scheme with an emphasis on a novel concept of Cherenkov coincidence background. The Monte Carlo modeling and the background predictions will be presented.

*Light refreshments served at 3:45pm*

*Presentation begins at 4:00pm*

*OPEN TO ALL*

## WHEN

**February 28, 2018  
4-5pm**

## WHERE

**Physics &  
Astrophysics  
Building  
Kistler  
Conference  
Room 102/103  
452 Lomita Mall  
Stanford, CA 94305**