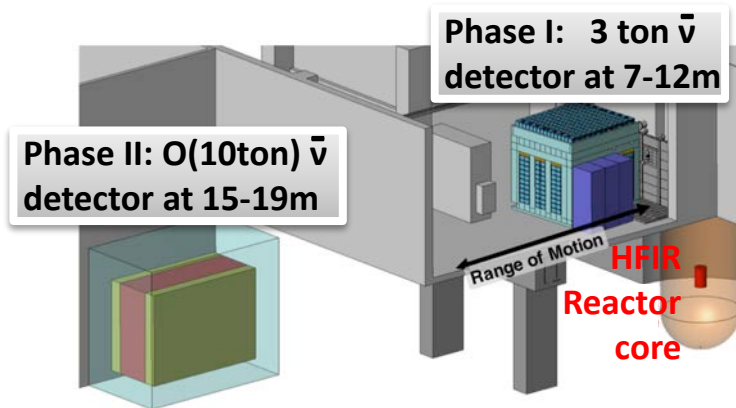


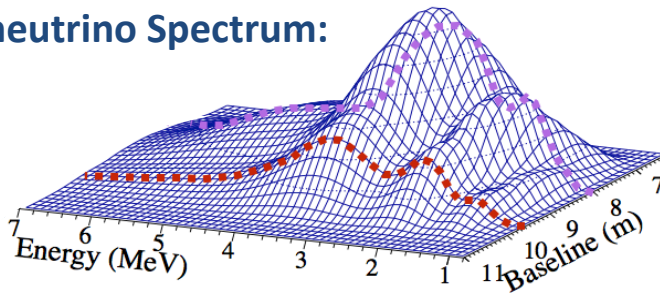
# PROSPECT: a Neutrino Oscillation and Spectrum Experiment

## Research Overview

PROSPECT addresses “Reactor Antineutrino Anomaly” with search for sterile neutrinos and precise measurement of the U-235 reactor antineutrino spectrum



Antineutrino Spectrum:



## Potential Collaborations

- Neutrino Physics
  - Neutrino Oscillation Studies
  - Precision Reactor Neutrino Spectrum
  - Studies of cosmogenic fast-n background
- Reactor Monitoring Demonstrations
  - Reactor monitoring with a compact on-surface antineutrino detector
  - Reactor antineutrino modeling
- Adapt liquid scintillator of PROSPECT to neutron detection projects

## PROSPECT Schedule

- PROSPECT is a new experiment
  - Funded by DOE-Science
- Data taking expected to start in late 2017
  - Excellent time for new students to join

Contact: Nathaniel Bowden, [nbowden@llnl.gov](mailto:nbowden@llnl.gov) (Rare Event Detection Group)