

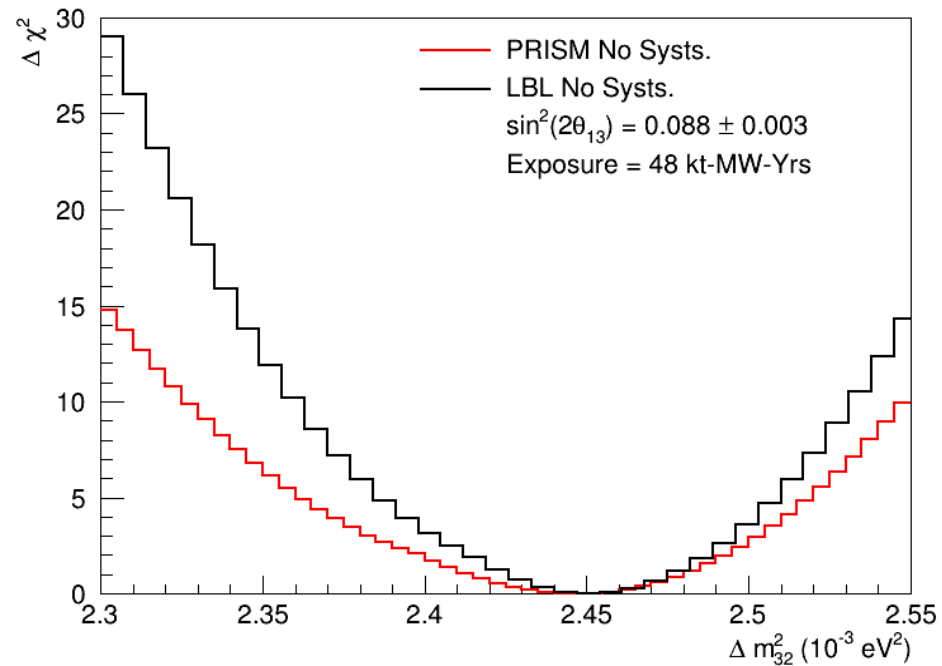
# PRISM Round-Up

- Progress on **merging** the PRISM branch to the main CAFAna branch – it will happen very soon (promise)
- Useful discussions on the two of the main additional features to be added to PRISM: **geometric efficiency** correction and **ND-to-FD translation**
- Wei is now working on including the **geometric efficiency** correction in CAFAna – including this is a priority for the group
- Beginning to make **comparisons** between the **on-axis LBL** analysis and **PRISM** analysis – started at this workshop

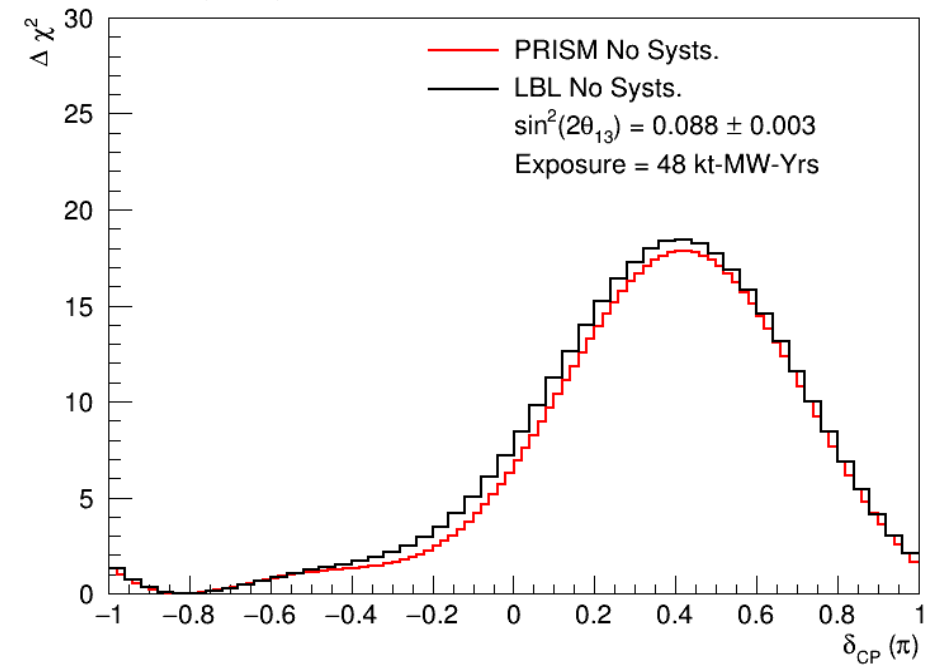
# LBL – PRISM Comparisons

- Compare **LBL asimov fits** to **PRISM asimov-like fits** with and without systematics
- Important caveats:
  - No geometric efficiency – large **cross-section** systematic impact from MC efficiency correction
  - Certain **focusing** uncertainties should become less impactful (e.g. decay pipe radius)
- Expect the PRISM fits to improve over time as more components added (see Wei's and Alex's talks from this week)

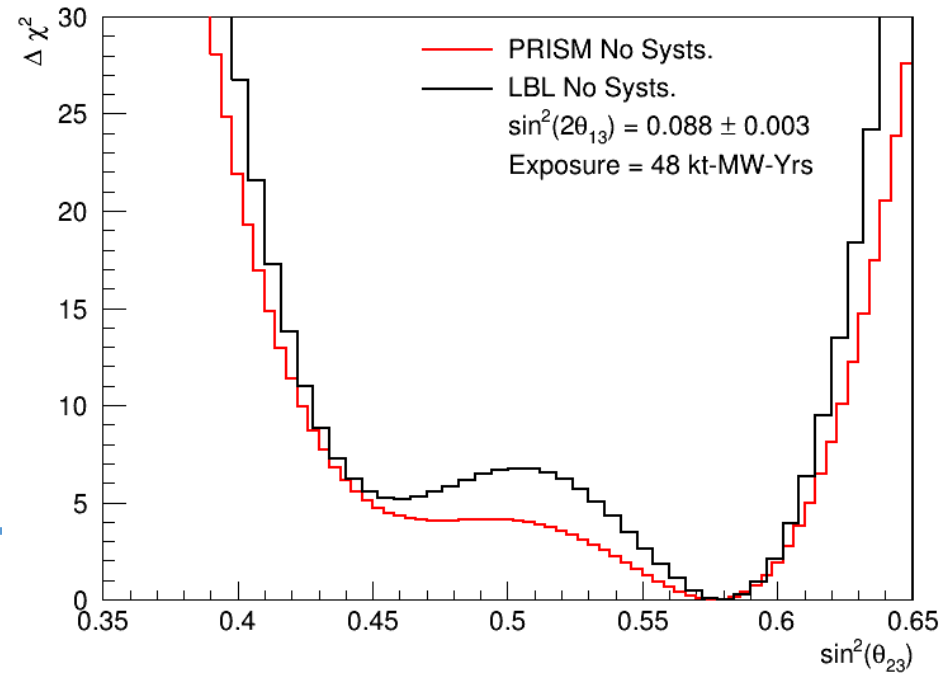
$\nu_\mu + \bar{\nu}_\mu + \nu_e + \bar{\nu}_e$ , PRISM - LBL Comparison



$\nu_\mu + \bar{\nu}_\mu + \nu_e + \bar{\nu}_e$ , PRISM - LBL Comparison

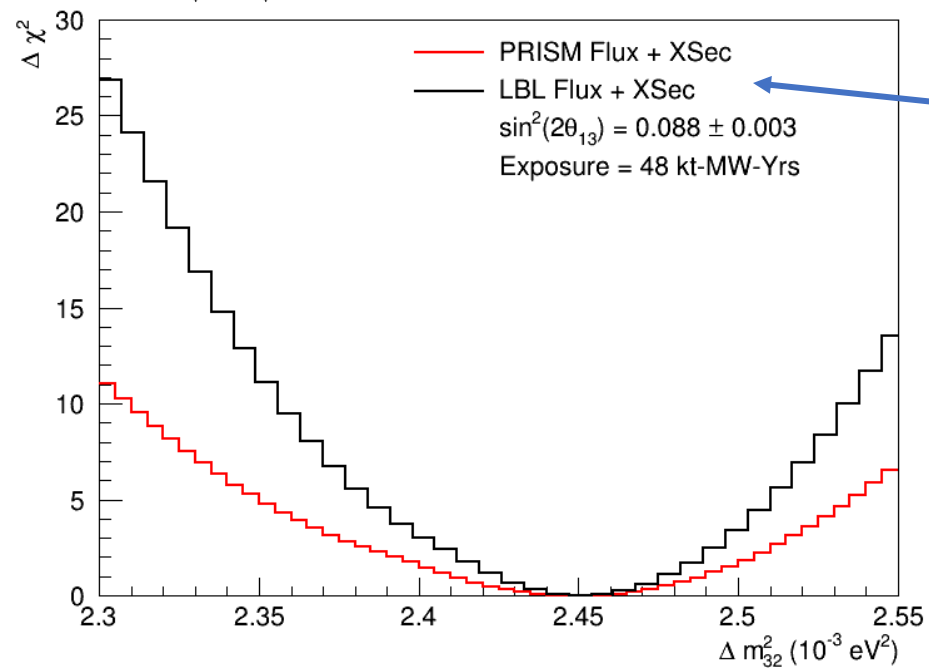


$\nu_\mu + \bar{\nu}_\mu + \nu_e + \bar{\nu}_e$ , PRISM - LBL Comparison



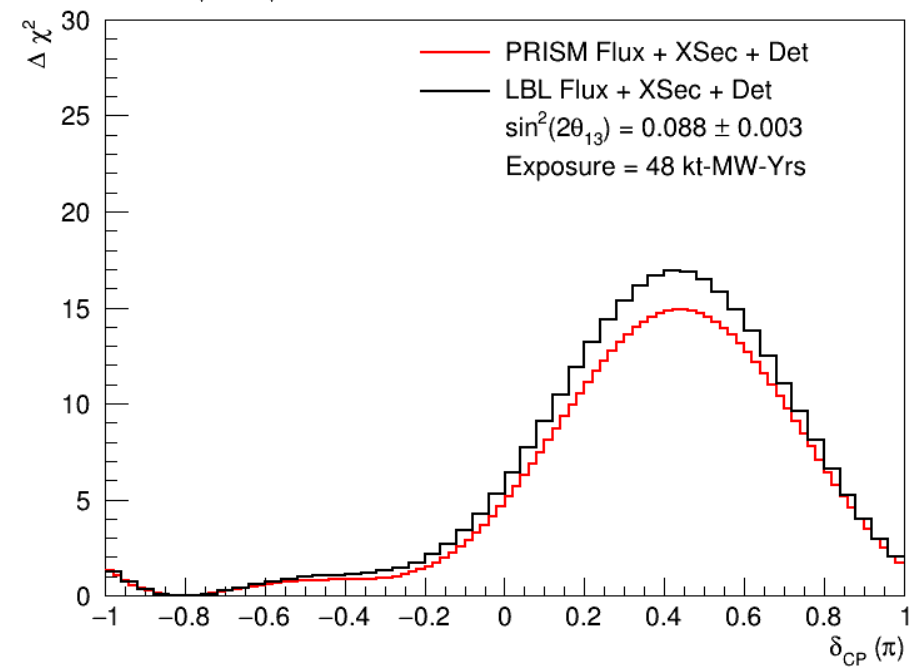
No Systematics

$\nu_\mu + \bar{\nu}_\mu + \nu_e + \bar{\nu}_e$ , PRISM - LBL Comparison

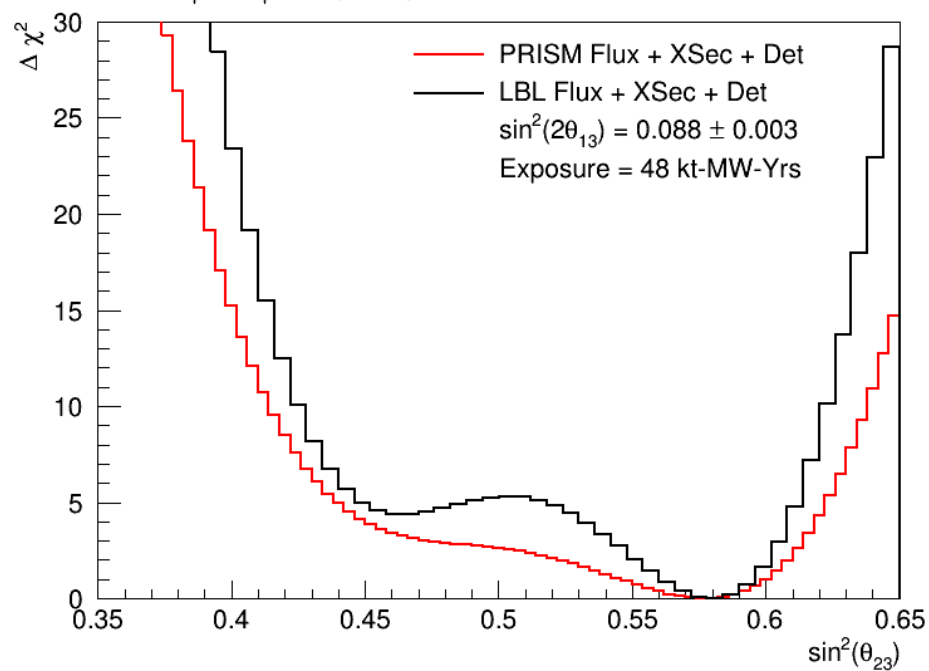


No detector systematics for dmsq32, sorry!

$\nu_\mu + \bar{\nu}_\mu + \nu_e + \bar{\nu}_e$ , PRISM - LBL Comparison



$\nu_\mu + \bar{\nu}_\mu + \nu_e + \bar{\nu}_e$ , PRISM - LBL Comparison



With Systematics