

Non-Standard Neutrino Interactions (Discussion Session)

Sandhya Choubey



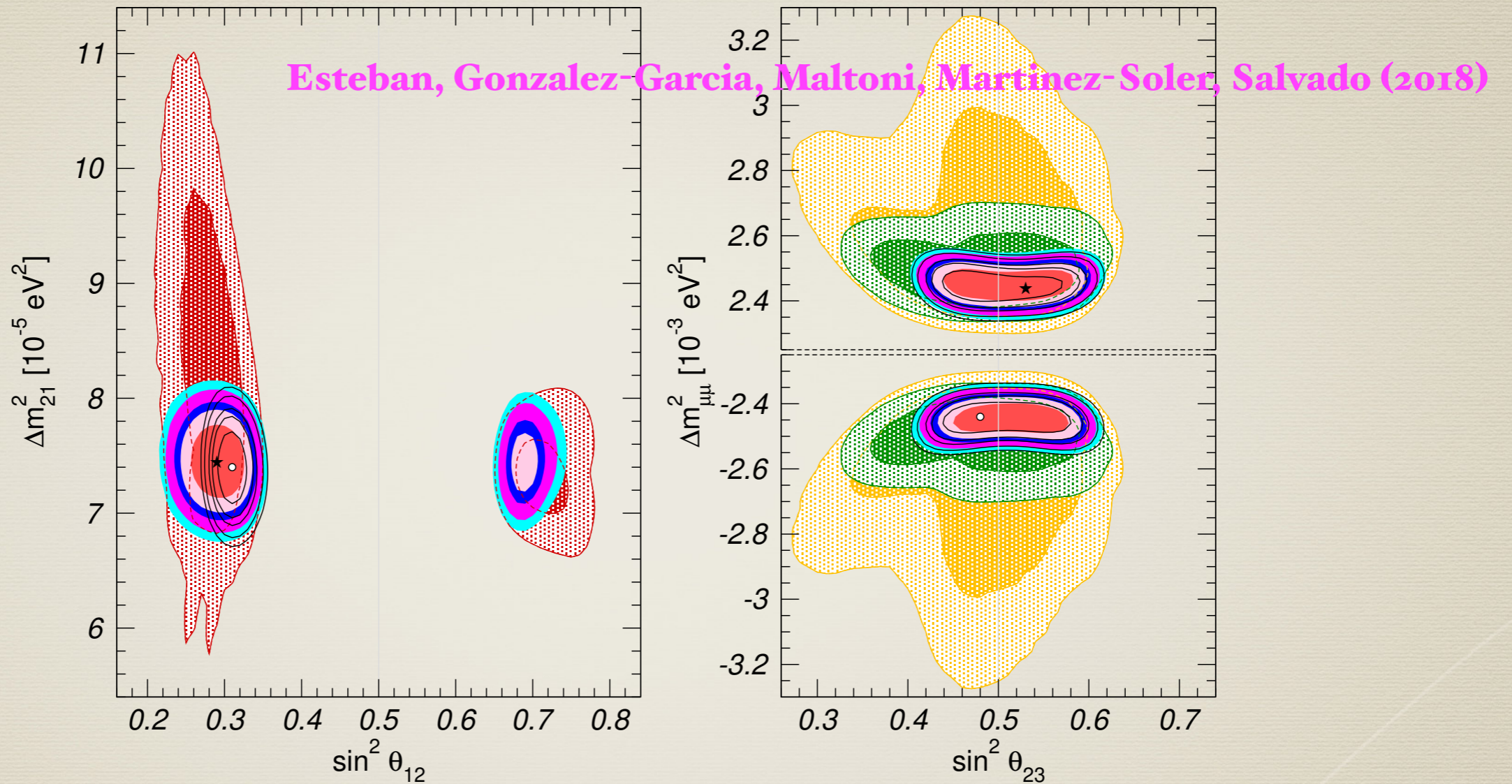
Harish-Chandra Research Institute

हरीश-चन्द्र अनुसंधान संस्थान

**1) NSI models and implications for/from
COHERNT and CEvNS**

Yasaman Farzan

2) NSI in Solar Neutrino Experiments - The LMA Dark Solution

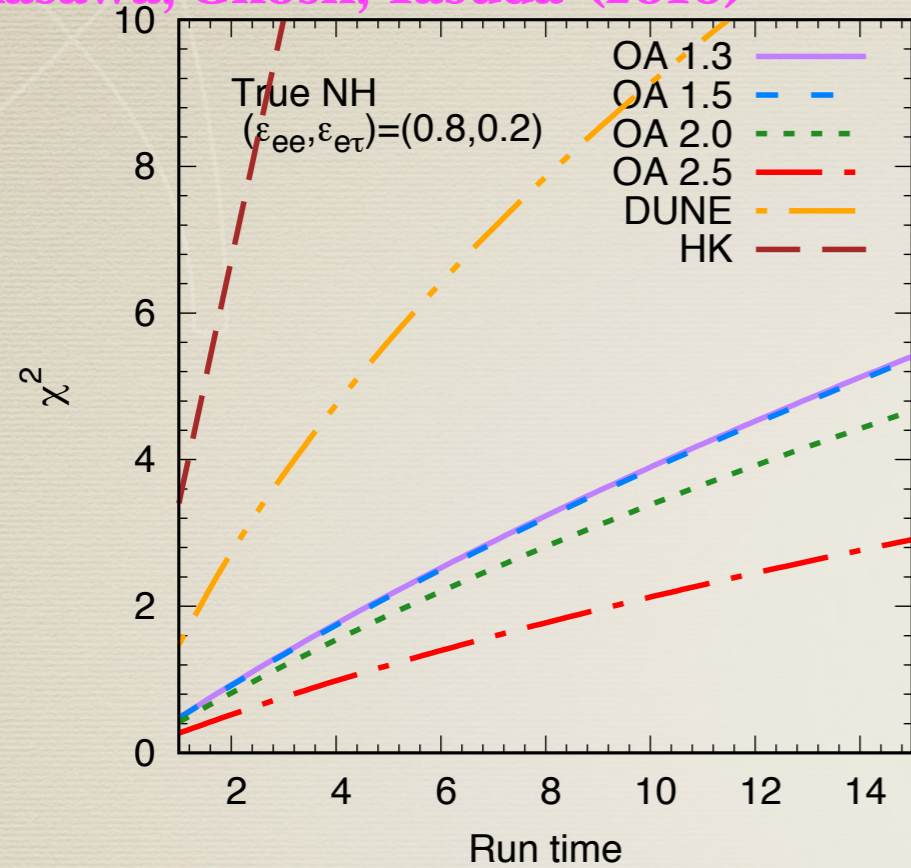


*How seriously should one take the dark LMA solution?

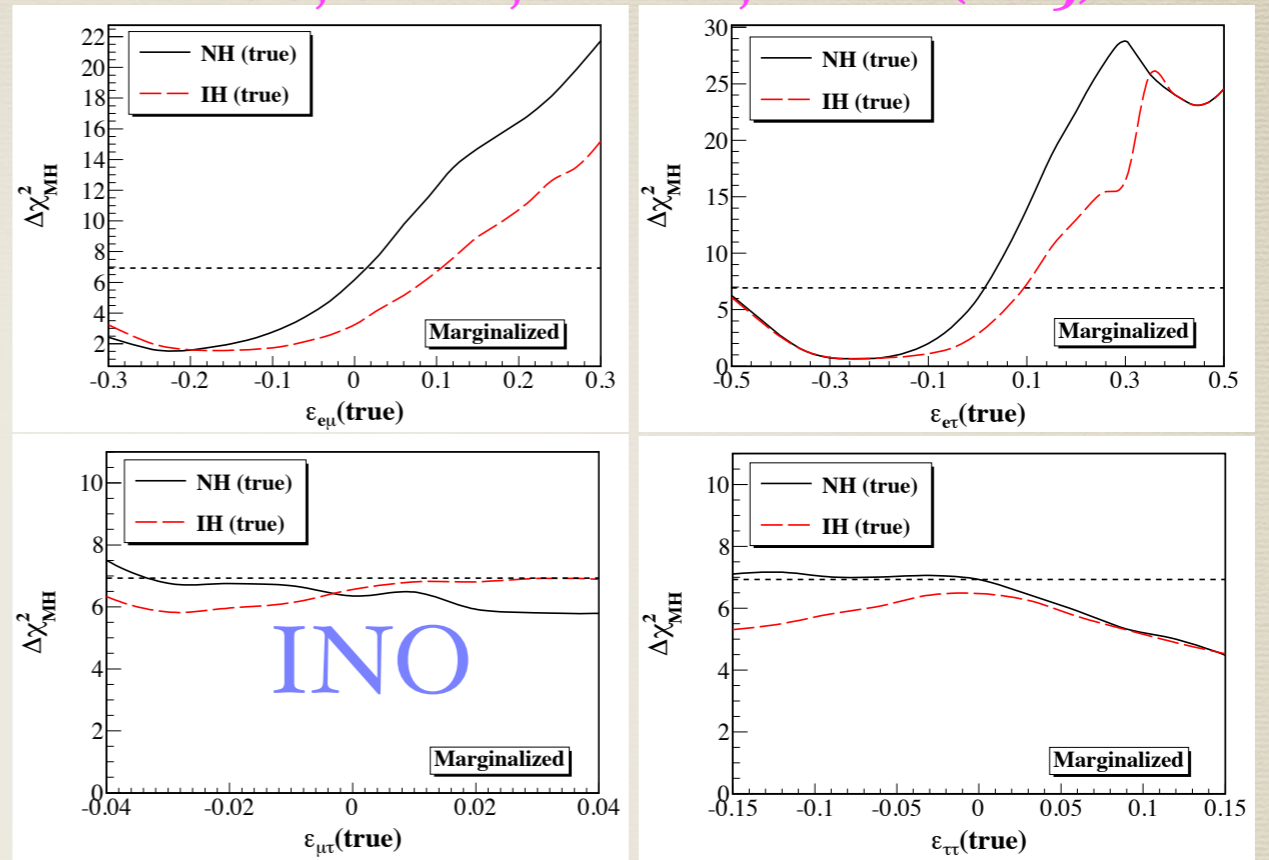
*Is there an independent way to verify the dark LMA?

3) NSI in Atmospheric Neutrino Experiments

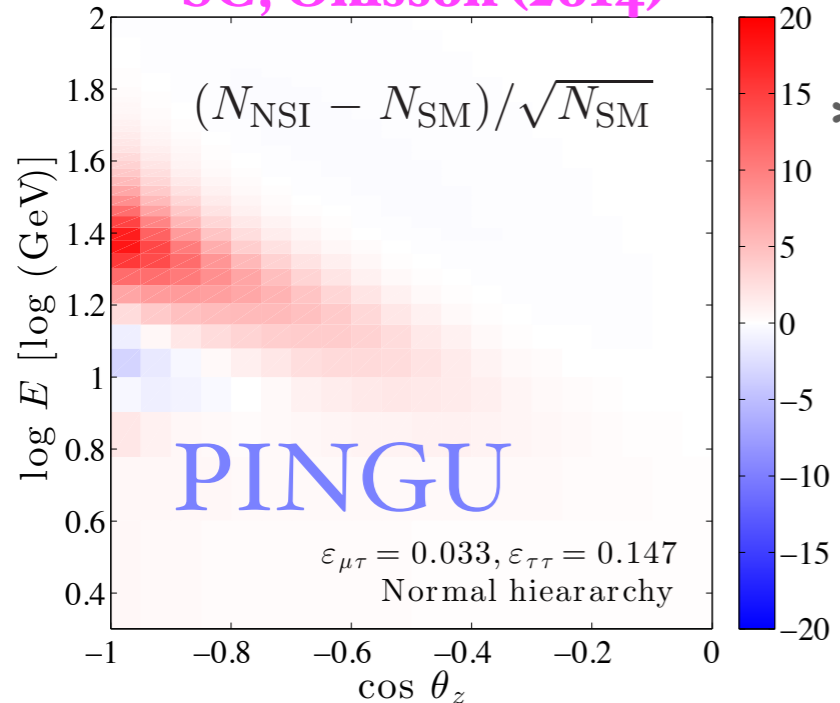
Fukasawa, Ghosh, Yasuda (2016)



SC, Ghosh, Ohlsson, Tiwari (2015)



SC, Ohlsson (2014)



*How imp is the impact of NSI on atm expts

*How well can atm expts measure NSIs?

DeepCore

4) NSI in Long-Baseline Experiments

- *Matter NSIs

- *Source/Detector NSIs

- *S/D and Matter NSIs

- *New Degeneracies - How important are they?

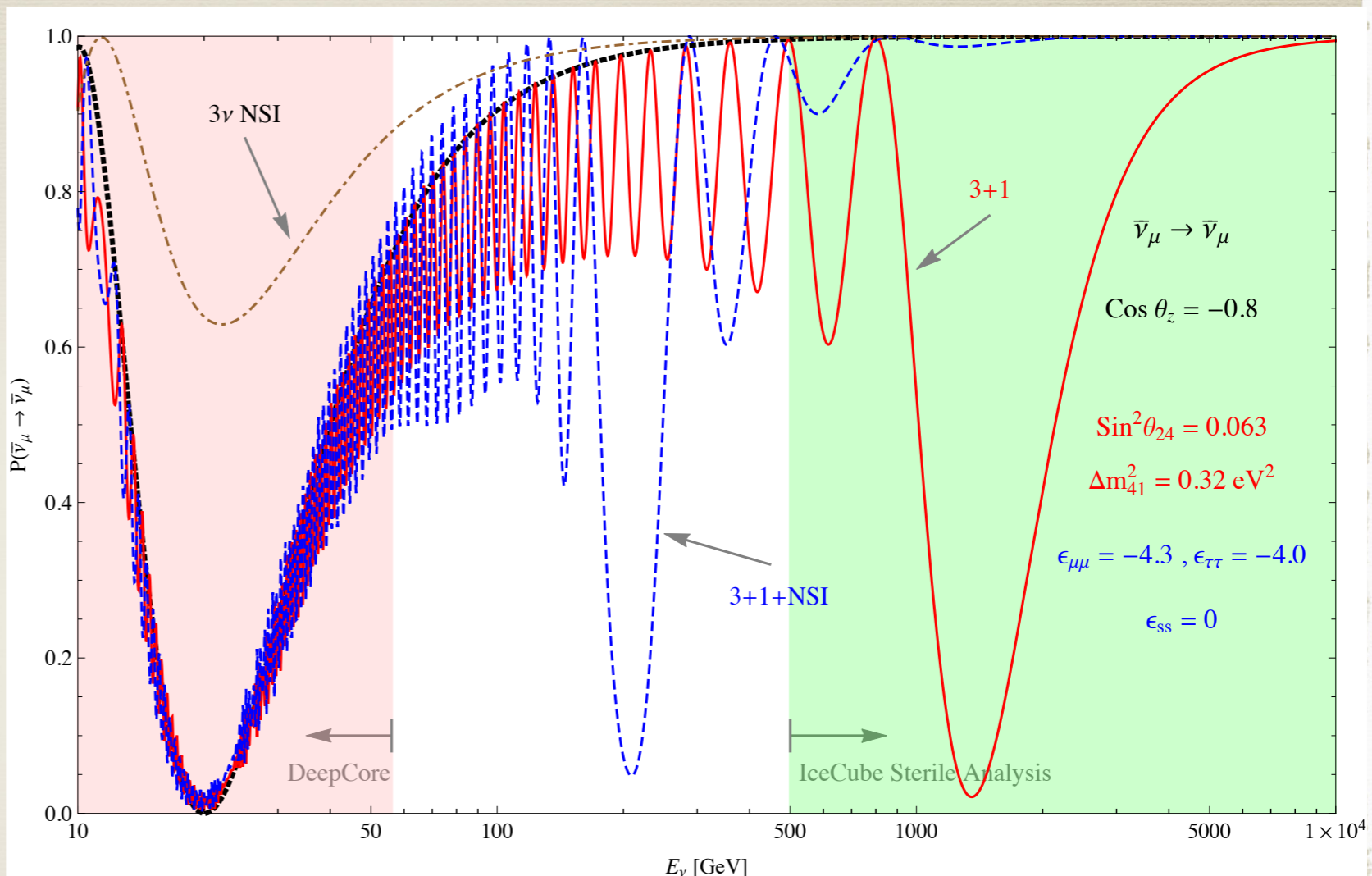
- *Can independent measurements from experiments like COHERENT improve the situation?

- *Can combining different oscillation experiments improve the situation?

- *Does it make sense to look at NSIs at LBL expts in the context of specific models only?

5) NSI in UHE Neutrino Experiments - NSI vs Sterile and constraints from IceCube

*Can IceCube null results on sterile nu be made compatible with LSND by taking NSI?



*Has IceCube been considered correctly?

*Role of MINOS and MINOS+?

*Magnitude of NSI needed?

*Is it fine-tuned?

7) Impact of NSI in Dark Matter Direct Detection Experiments

*Can NSI parameters be measured in direct detection experiments?

*Can NSI parameters affect the neutrino floor of direct detection experiments?

6) NSI in Type II Supernova

Any comments from?

Amol Dighe

Basudeb Dasgupta

Sovan Chakraborty

Can be discussed in the SN session as well