What is the theory motivation to go beyond the current program?

How can theorists best support the experimental program?

- Improved neutrino nucleon cross section calculations and uncertainties
- Implement theory models into MC generators
- Further MC generator developments and studies quantifying theoretical uncertainties
- Encouragement for experiments to use multiple MC generators
- Standardisation of MC generator output and LArSoft input (useful for theorists as well)
- Support with statistics
- Fast computation of oscillation probabilities in matter: computational bottle neck for long baseline experiments
- Open communication and innovative use of resources: FASERnu
- What new physics information we can extract from experiments which are typically perceived as less multipurpose: neutrino less double beta decay experiments. Xenon-1T will be sensitive to NDBD, what about the converse? comment from Volodymyr Takhistov

Ask not what a theorist can do for you; ask what you can do for a theorist

- **Wishlist**

distributions and cross sections of background and data in various file formats

Testing new physics models in a rigorous manner

Make it easier to encode new physics into MC generators

Comparison to (possibly unfolded) data. Available at central data base such as HEP data

validated analysis publicly available