# **Report from a Seconded** Researcher

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81222.2022



Dipartimento di Fisica e Astronomia Galileo Galilei

**Maria Artero Pons** 

**MidTerm Review of SENSE** 





European Commission



G.A. 822185

### Presentation

 I joined the ICARUS Neutrino Group based in Padova in January 2021 to pursue my PhD

Under the Grant Agreement no.858199 of the European Union Horizon 2020 Programme, Marie Skłodowska-Curie Actions (MSCA), Innovative Training Networks as a part of the INTENSE project





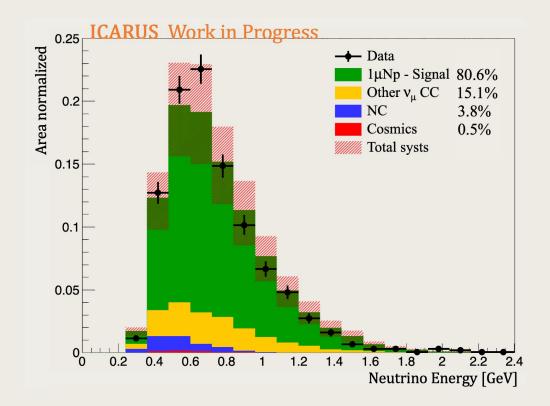
- Title: Study of the reconstruction of  $v_{\mu}$  CC QE events from the Booster Neutrino Beam with the ICARUS detector
- Successfully defended the thesis in April 2024!

#### PhD research

• During this period I was firstly involved in Calibration activities, but afterwards I mainly devoted my time to developed an automatic selection to identify a simple topology of  $v_{\mu}$ CC QE interactions (1 $\mu$ 1p)

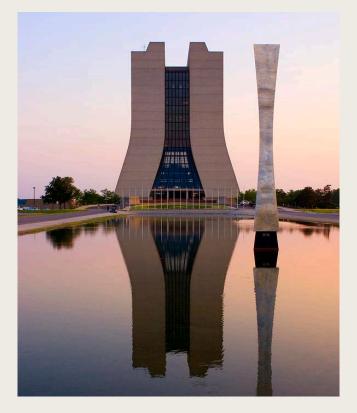
My thesis served as a benchmark to prove the effectiveness of the selection

 Further worked allowed to generalized the selection (1µNp) leading to preliminary results such as the ones presented in the Neutrino 2024 International Conference (See here)



### What's next?

- From January 2024 I am a PostDoc at the University of Padova still working on Neutrino Physics
- I will be Run Coordinator onsite at Fermilab, US from June September 2025 (SENSE Secondments)





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