Workshops and Schools working group

Artur Ankowski, Adi Ashkenazi, Clarence Wret

Welcoming all feedback; group is new and under development!

NuSTEC board meeting
December 7 2021

Who are we?

- Artur Ankowski

  – Theory, phenomenology

  – DUNE, Jlab Hall A, LDMX, NuWro collaborator

- Adi Ashkenazi

  – Electron scattering and e4nu, LAr

  – DUNE, uBooNE, CLAS, GENIE collaborator

- Clarence Wret

  – NEUT and NUISANCE

  – DUNE, T2K, MINERvA collaborator

Working group task

- Neutrino interactions are crucial part of experiments' analyses; vital to attract experimentalists to workshops

- Important to connect theory-focussed students to experimentalists for greatest profit of theory work, and also to connect theorists

- Build on current expertise and relationships in field, encourage open discussion and collaboration

I. NUSTEC Workshops and Schools Working Group's mission statement

1) The group shall foster the collaboration between the theoretical and experimental members of the community by organizing joint workshops and schools.

2) The workshops shall present the latest theoretical and experimental results in neutrino interactions, review the existing knowledge, recognize the needs of the community and stimulate developments in the desired directions, as well as provide early-career researchers with opportunities to present their findings.

3) The schools shall play a fundamental role in fostering the understanding of neutrino interactions among students, ensuring the continuity of the expertise for the ongoing and future efforts of the community.

Working group task

II. Ideas on how the working group will operate

Identifying specific needs and target audience who could benefit from a workshop

Encourage that each year there's at least one school and/or workshop for beginners

Get funds for those who need it in order to participate

Make sure all are represented in the programs of the schools and workshops

- Not intending to hijack workshops and schools; rather offering guidance and advice on relevant topics and speakers, and advertising them to the community

  – Stretch goal is to establish some funding mechanism for participants who may need it

  – Propose to run **at least** once every two years

- Work together with Cross Experiment Working Group (CEWG), which aims to connect experimental groups

  – e.g. discussing analysis approaches, crucial systematics

Previous workshops and schools

- NuSTEC has organised a number of successful workshops

  - New Directions (online), March 2021

  - NuSTEC single pion production (Pittsburgh, USA), Oct 2019

  - NuSTEC SIS/DIS (Gran Sasso, Italy), before NuInt 2018

  - IPPP NuSTEC 2017 (Durham, UK)

- Schools have also been run

  - FNAL 2017, Okayama 2015, FNAL and Liverpool 2014

  - Notable absence in recent years!

- Other workshops sharing similar goals to NuSTEC have also run, with varying amounts of NuSTEC participation

  - ECT* (Trento), International Neutrino Summer School (INSS), Tensions 2016/19 (Pittsburgh), Generator Tools Workshop (FNAL), INT (Seattle), Nu-Print (FNAL), State of the Nu-tion (NuInt 2018), NuTune 2016... and many others

- Often **try to run in parallel with major relevant conferences**, where NuInt is the obvious candidate

  - Less travel required; experts and students are already there

Imminent Proposal

- Neutrino 2022
  Seoul, Korea 30 May-3 June

- NuInt 2022
  Seoul, Korea; 23-28 May

- Week preceding NuInt is DUNE CM

- Week before DUNE CM is T2K CM

- Not aware of any clashes **after Neutrino 2022**

- **Propose for a NuSTEC workshop and/or school after Neutrino and NuInt, i.e. 6 June**

- Topics likely to include generator tutorials, theory and phenomenology lectures and talks, and in-depth discussion of exp. measurements

- Propose to directly contact NuInt organisers with suggestion, and build from there

- **What are your thoughts?**

Workshop reminder
Improving the art of neutrino nuclei modelling with charged lepton scattering data

Tel Aviv 28 March-1 April

Contact Adi at adishka@tauex.tau.ac.il

NuSTEC introducing:
Expanding our palette

Improving the art of neutrino nuclei modelling with charged lepton scattering data

Save the Date
28/3/22 - 1/4/22
Tel Aviv University

Thanks!