NuSTEC Outreach Working Group Report

Conveners: Teppei Katori (King's College London)
Vishvas Pandey (Fermilab)

NuSTEC
Neutrino Scattering
Theory-Experiment Collaboration

NuSTEC Outreach Working Group

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- Teppei Katori (King's College London)
- Vishvas Pandey (Fermilab)

(*New*) WG Members:

- Afroditi Papadopoulou (ANL)
- …..

- *Planning to continue expanding. Please let your Early Career colleagues know to get in touch with us if they are interested in being involved*

- **<u>Listserv: NuSTEC-News</u>** (Subscriber ~ 550)
  - Advertise nuxsec workshops/schools
  - Advertise NuSTEC WG activities
  - Heavily used during Snowmass process by the nu-xsec community

[NUSTEC-NEWS] CTGWG NuSTEC seminar: Nuclear effects in neutrino-nucleus cross sections by Raúl González Jiménez (Complutense, Madrid)

LR NuSTEC new mailing list <NUSTEC-NEWS@LISTSERV.FNAL.GOV> on behalf of Luis Alvarez Ruso <Luis.Alvarez@IFIC.
To: nustec-news
Mon 11/14/2022 10:53 AM

Dear all,

The NuSTEC Cross Theory and Generators Working Group announces a new seminar on Wed. Nov. 16 at 9.30 am CT = = 16:30 CET = 00:30 (+1day) JST

Title: Nuclear effects in neutrino-nucleus cross sections
Speaker: Dr. Raúl González Jiménez (Complutense, Madrid)
Abstract: Within the framework of a relativistic mean-field model, I will discuss some relevant nuclear effects that affect neutrino-nucleus cross sections at the energies of interest for neutrino-oscillation experiments: Pauli blocking, binding energies, factorization and hadron final state interactions. I will stress the differences between this relativistic and quantum mechanical approach and the models and methodology that is inside the Monte Carlo neutrino event generators. The results that I will present are mainly based on

[NUSTEC-NEWS] MITP & NuSTEC workshop in Mainz -- announcement

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Dear Colleagues,

We are pleased to announce the MITP workshop **Neutrino scattering at low and intermediate energies**, organized in collaboration with NuS
Germany on **June 26-30, 2023**. More details are available on the meeting website: https://indico.mitp.uni-mainz.de/event/324/.

The workshop will be focused on neutrino-nucleus interactions at energies of tens to hundreds of MeV. Examples of these include studies of co

[NUSTEC-NEWS] International Neutrino Summer School 2023

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Dear Colleagues,

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7 to 18, 2023, sponsored by the Neutrino Physics Center (NPC) at Fermilab. We expect to have a limited number of scholarships available, c
qualified students in need of support.

For the past fifteen years, the International Neutrino Summer School has convened at locations around the world to provide training for the n

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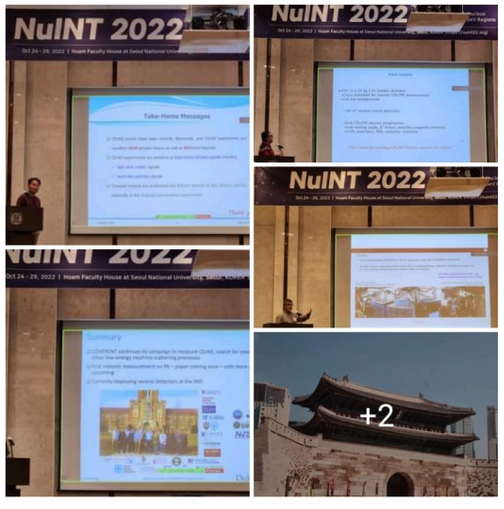
  - Highlight nu-xsec related activities
  - Community engagement

NUSTEC-News
Oct 28 ·

#NuInt22 day4
https://indico.cern.ch/event/881216/timetable/#20221027.detailed
Excellent presentations on coherent neutrino scattering. After the morning session, we continued with an excursion to the Secret Garden!



Boost this post to reach up to 395 more people daily if you spend €14. Boost post

Teppei Katori and 8 others 1 share

NUSTEC-News
Dec 1 ·

An exciting move is underway at Fermilab: A 20,000-pound neutrino detection system built for the Short-Baseline Near Detector will travel 3 miles across the lab campus today!

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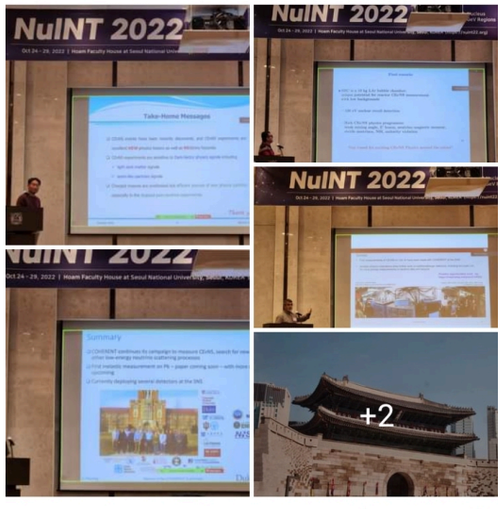

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- **Twitter: NuSTEC~~-News~~**
  - *Coming soon*

- **Webpage**
  - General info about the collaboration
  - List of nu-xsec related workshops and schools

  - Dedicated pages for each WG (in-progress)
    - Please send us a couple of lines of your WG's mission/charge

    - Can also add pictures of conveners?

    - Some pages are more complete than others e.g. CTGWG

- Workshops, conferences, schools
- Cross Experiment Working Group (CEWG)
- Cross Theory and Generators Working Group
- Long-term Community Planning
- Outreach
- Publications Working Group

Cross Theory and Generators Working Group

Conveners: Luis Alvarez-Ruso, Noemi Rocco, Jan Sobczyk, Steven Dytman

2022

- February 2, 2022, "New CC0pi GENIE Tune for MicroBooNE", Steven Gardiner (FNAL)
- March 9, 2022, "Final-State Interactions in inclusive and exclusive one-nucleon knockout", Alexis Nikolakopoulos (FNAL)
- April 13, 2022, "Study of final-state interactions of protons in neutrino-nucleus scattering with INCL and NuWro cascade models", Anna Ershova (Saclay)
- June 7, 2022, "Achilles: A Modern Theorist-Driven Event Generator", Joshua Isaacson (FNAL)
- October 19, 2022, "An Altarelli Cocktail for the MiniBooNE Anomaly?", Vedran Brdar (CERN)

Support from Fermilab Office of Communication:

- Jon and I met with Kurt Riesselmann at Fermilab's office of communications

- Ket takeaways:

  - Symmetry Magazine Article: Potential to write a symmetry magazine article highlighting unique and special aspect of the story of NuSTEC:

    - we bring Theory/Experiment/Generator as well as a HEP/NP communities together, international collaboration, etc. focused on improving the physics of neutrino experiments
    - send a few key points to Kurt, he will forward that to Kathryn Jepsen of Symmetry

    If we are interested, we can draft a few sentences and share with the board before passing it on to Kurt.

  - Internal FNAL Article: They can write an internal article that can go to Fermilab Today

  - Social Media Support: They are understaffed but are planning to hire a new person next year. Kurt suggested that we can meet with that person next year and help get our social media post boosted, etc.