

# **Workshop on Neutrino Event Generators**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## **GENIE Overview**

*Wednesday, 15 March 2023 09:15 (20 minutes)*

**Presenter:** RODA, Marco (University of Liverpool)

**Session Classification:** Generator Overview

Contribution ID: 3

Type: **not specified**

## NEUT Overview

*Wednesday, 15 March 2023 09:35 (20 minutes)*

**Presenter:** HAYATO, Yoshinari (Kamioka, ICRR, Univ. of Tokyo)

**Session Classification:** Generator Overview

Contribution ID: 4

Type: **not specified**

## NuWro Overview

*Wednesday, 15 March 2023 09:55 (20 minutes)*

**Presenter:** SOBCZYK, Jan

**Session Classification:** Generator Overview

Contribution ID: 5

Type: **not specified**

## Achilles Overview

*Wednesday, 15 March 2023 10:15 (20 minutes)*

**Presenter:** JAY, William (MIT)

**Session Classification:** Generator Overview

Contribution ID: 6

Type: **not specified**

## GENIE Event Library

*Wednesday, 15 March 2023 13:00 (20 minutes)*

**Presenter:** RODA, Marco (University of Liverpool)

**Session Classification:** Interfaces

Contribution ID: 7

Type: **not specified**

## **BSM Interfaces**

*Wednesday, 15 March 2023 13:20 (20 minutes)*

**Presenter:** MACHADO, Pedro (Fermilab)

**Session Classification:** Interfaces

Contribution ID: 8

Type: **not specified**

## Achilles Fortran Interface

*Wednesday, 15 March 2023 13:40 (20 minutes)*

**Presenter:** ISAACSON, Joshua (FNAL)

**Session Classification:** Interfaces



Contribution ID: 9

Type: **not specified**

## **GENIE Fortran Interface**

*Wednesday, 15 March 2023 14:00 (20 minutes)*

**Presenter:** STEINBERG, Noah

**Session Classification:** Interfaces

Contribution ID: 13

Type: **not specified**

## Welcome

*Wednesday, 15 March 2023 09:00 (10 minutes)*

**Presenters:** ISAACSON, Joshua (FNAL); MCFARLAND, Kevin (University of Rochester); FIELDS, Laura (University of Notre Dame); BETANCOURT, Minerba (Fermilab)

**Session Classification:** Generator Overview

Contribution ID: 14

Type: **not specified**

## **Role of Two-Body Current**

*Wednesday, 15 March 2023 16:00 (20 minutes)*

**Presenter:** BENHAR, Omar (INFN - Rome)

**Session Classification:** Theory Calculations

Contribution ID: 16

Type: **not specified**

## **Rescattering with RDWIA Inputs**

*Wednesday, 15 March 2023 16:20 (20 minutes)*

**Presenter:** NIKOLAKOPOULOS, Alexis (FNAL)

**Session Classification:** Theory Calculations

Contribution ID: 17

Type: **not specified**

## **SBND Experience with GiBUU**

*Thursday, 16 March 2023 09:00 (20 minutes)*

**Presenters:** ALIAGA SOPLIN, Leonidas (University of Texas at Arlington); CASTILLO FERNANDEZ, Raquel (University of Texas at Arlington)

**Session Classification:** File Formats

Contribution ID: 19

Type: **not specified**

## Event Formats and HepMC3

*Thursday, 16 March 2023 09:20 (20 minutes)*

**Presenter:** GARDINER, Steven

**Session Classification:** File Formats

Contribution ID: 20

Type: **not specified**

## Discussion

*Thursday, 16 March 2023 09:40 (1 hour)*

**Session Classification:** File Formats

Contribution ID: 22

Type: **not specified**

## **New Developments in Flux and Geometry**

*Thursday, 16 March 2023 11:20 (20 minutes)*

**Presenter:** ISAACSON, Joshua (FNAL)

**Session Classification:** File Formats



Contribution ID: 23

Type: **not specified**

## Discussion

*Thursday, 16 March 2023 11:40 (20 minutes)*

**Session Classification:** File Formats

Contribution ID: 24

Type: **not specified**

## **Tuning Impact on New Physics Searches**

*Thursday, 16 March 2023 13:00 (20 minutes)*

**Presenter:** COYLE, Nina (University of Chicago)

**Session Classification:** Systematics

Contribution ID: 25

Type: **not specified**

## **GENIE + Professor Approach to Tuning**

*Thursday, 16 March 2023 13:20 (20 minutes)*

**Presenter:** TENA VIDAL, Julia (Tel Aviv University)

**Session Classification:** Systematics

Contribution ID: 27

Type: **not specified**

## Theory Systematics

*Thursday, 16 March 2023 13:40 (20 minutes)*

**Presenters:** WAGMAN, Michael (Fermilab); ROCCO, Noemi (Fermilab)

**Session Classification:** Systematics

Contribution ID: 28

Type: **not specified**

## DUNE Systematics

*Thursday, 16 March 2023 14:00 (20 minutes)*

**Presenter:** WILKINSON, Callum (Lawrence Berkeley National Laboratory)

**Session Classification:** Systematics

Contribution ID: 29

Type: **not specified**

## DUNE DIRT2/NIUWG

*Thursday, 16 March 2023 14:40 (20 minutes)*

**Presenter:** MUNTEANU, Laura (CERN)

**Session Classification:** Systematics

Contribution ID: **30**

Type: **not specified**

## **NOvA/T2K Systematics**

*Thursday, 16 March 2023 15:00 (20 minutes)*

**Presenters:** BRONNER, Christophe (Kyoto University); VALLARI, Zoya (Caltech)

**Session Classification:** Systematics

Contribution ID: **31**

Type: **not specified**

## Discussion

*Thursday, 16 March 2023 15:20 (1h 10m)*

**Session Classification:** Systematics



Contribution ID: 32

Type: **not specified**

## NUISANCE

*Friday, 17 March 2023 09:00 (20 minutes)*

**Presenter:** WRET, Clarence

**Session Classification:** Data Comparison

Contribution ID: 33

Type: **not specified**

## RIVET

*Friday, 17 March 2023 09:20 (20 minutes)*

**Presenter:** BUCKLEY, Andy (University of Glasgow)

**Session Classification:** Data Comparison

Contribution ID: **34**

Type: **not specified**

## **Discussion**

*Friday, 17 March 2023 10:00 (40 minutes)*

**Session Classification:** Data Comparison

Contribution ID: 35

Type: **not specified**

## **GENIE Data Comparison Tools**

*Friday, 17 March 2023 11:00 (20 minutes)*

**Presenters:** TENA VIDAL, Julia (Tel Aviv University); RODA, Marco (University of Liverpool)

**Session Classification:** Data Comparison

Contribution ID: 36

Type: **not specified**

## **FSI Options and Comparisons**

*Friday, 17 March 2023 11:20 (20 minutes)*

**Presenter:** DYTMAN, Steven (Univ. of Pittsburgh)

**Session Classification:** Data Comparison

Contribution ID: 37

Type: **not specified**

## Discussion

*Friday, 17 March 2023 11:40 (20 minutes)*

**Session Classification:** Data Comparison

Contribution ID: **38**

Type: **not specified**

## **e4nu Comparison Status and Outlook**

*Friday, 17 March 2023 13:00 (20 minutes)*

**Presenter:** PAPADOPOULOU, Afroditi

**Session Classification:** Data Comparison

Contribution ID: 39

Type: **not specified**

## Theory Perspectives

*Friday, 17 March 2023 13:20 (20 minutes)*

**Presenter:** LI, Shirley (Fermilab)

**Session Classification:** Data Comparison



Contribution ID: 40

Type: **not specified**

## ReMU

*Friday, 17 March 2023 09:40 (20 minutes)*

**Presenter:** KOCH, Lukas (Johannes Gutenberg Universität Mainz)

**Session Classification:** Data Comparison

Contribution ID: 41

Type: **not specified**

## Discussion

*Friday, 17 March 2023 13:40 (40 minutes)*

**Session Classification:** Data Comparison

Contribution ID: 42

Type: **not specified**

## Workshop Summary and Conclusions

*Friday, 17 March 2023 15:00 (20 minutes)*

**Presenters:** ISAACSON, Joshua (FNAL); MCFARLAND, Kevin (University of Rochester); FIELDS, Laura (University of Notre Dame); BETANCOURT, Minerba (Fermilab)

**Session Classification:** Generator Overview

Contribution ID: 43

Type: **not specified**

## Whitepaper and future work discussion

*Friday, 17 March 2023 15:20 (1h 40m)*

**Session Classification:** Generator Overview

Contribution ID: 44

Type: **not specified**

## ICARUS Generation Pipeline

*Wednesday, 15 March 2023 14:20 (20 minutes)*

**Presenter:** PUTNAM, Gray

**Session Classification:** Interfaces

Contribution ID: 45

Type: **not specified**

## **DIS**

*Thursday, 16 March 2023 11:00 (20 minutes)*

**Presenter:** HAIDER, huma (student)

**Session Classification:** File Formats