

# **Phase II ND Workshop**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## TPC teststands

*Wednesday, 21 June 2023 09:00 (20 minutes)*

**Presenters:** MOHAYAI, Tanaz Angelina (Illinois Institute of Technology); MOHAYAI, Tanaz (Fermilab)

**Session Classification:** Detector Systems

Contribution ID: 2

Type: **not specified**

## **GEMs for the gas argon TPC**

*Wednesday, 21 June 2023 09:30 (20 minutes)*

**Presenters:** MAVROKORIDIS, Konstantinos; MAVROKORIDIS, Konstantinos (University of Liverpool); MAVROKORIDIS, Kostas (Univ of Liverpool)

**Session Classification:** Detector Systems

Contribution ID: 3

Type: **not specified**

## TPC readout electronics

*Wednesday, 21 June 2023 10:00 (20 minutes)*

**Presenter:** DUNNE, Patrick (Imperial College London)

**Session Classification:** Detector Systems

Contribution ID: 4

Type: **not specified**

## **ECal for the gaseous argon detector**

**Presenter:** WEBER, Alfons (JG-Uni Mainz & Fermilab)

Contribution ID: 5

Type: **not specified**

## **Light collection systems for the gaseous argon detector**

**Presenter:** GONZALEZ DIAZ, Diego

Contribution ID: 7

Type: **not specified**

## **Reconstruction for the gaseous argon detector**

**Presenter:** JUNK, Thomas (Fermilab)

Contribution ID: 9

Type: **not specified**

## **Gas argon detector magnet design**

**Presenter:** PALLAVICINI, Marco (INFN and University of Genova)



Contribution ID: **10**

Type: **not specified**

## **Lessons learned from recent gas TPCs**

**Presenter:** DEISTING, Alexander (Royal Holloway University of London)

Contribution ID: 11

Type: **not specified**

## **WBLs in the gas argon detector**

**Presenter:** WILKING, Michael (Stony Brook University)

Contribution ID: 12

Type: **not specified**

## **DUNE PRISM in Phase II**

*Thursday, 22 June 2023 09:00 (20 minutes)*

**Presenter:** WILKING, Michael (Stony Brook University)

**Session Classification:** Detector Systems

Contribution ID: 13

Type: **not specified**

## **SAND Detector - Phase II**

*Thursday, 22 June 2023 09:30 (20 minutes)*

**Presenter:** MONTANARI, Alessandro (INFN - Bologna)

**Session Classification:** Detector Systems

Contribution ID: 15

Type: **not specified**

# Welcome

*Tuesday, 20 June 2023 11:00 (15 minutes)*

**Presenter:** DUNNE, Patrick (Imperial College London)

**Session Classification:** Introduction

Contribution ID: 16

Type: **not specified**

## **DUNE project and goals for this workshop**

*Tuesday, 20 June 2023 11:15 (35 minutes)*

**Presenters:** BISHAI, Mary (Brookhaven National Laboratory); BISHAI, Mary

**Session Classification:** Introduction

Contribution ID: 17

Type: **not specified**

## **ND requirements for DUNE Phase-I and Phase-II**

*Tuesday, 20 June 2023 12:00 (20 minutes)*

**Presenter:** TANAKA, Hirohisa

**Session Classification:** Introduction

Contribution ID: **18**

Type: **not specified**

## **LBL physics with NDs: T2K experience**

*Tuesday, 20 June 2023 14:00 (20 minutes)*

**Presenter:** SCOTT, Mark (Imperial College London)

**Session Classification:** Physics



Contribution ID: 19

Type: **not specified**

## **LBL physics at DUNE ND**

*Tuesday, 20 June 2023 14:30 (20 minutes)*

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

**Session Classification:** Physics

Contribution ID: 20

Type: **not specified**

## **Neutrino-nucleus interaction physics at DUNE ND**

**Presenter:** ALVAREZ-RUSO, Luis (University of Valencia)

Contribution ID: 21

Type: **not specified**

## **LBNF beam in Phase II**

*Wednesday, 21 June 2023 16:30 (20 minutes)*

**Presenter:** BACK, John (University of Warwick)

**Session Classification:** Facilities

Contribution ID: 22

Type: **not specified**

## **ND cavern**

*Wednesday, 21 June 2023 17:00 (20 minutes)*

**Presenters:** CREUS PRATS, Joaquim (CERN); CREUS-PRATS, Joaquim

**Session Classification:** Facilities

Contribution ID: 23

Type: **not specified**

## **DUNE-PRISM in Phase II**

**Presenter:** WILKING, Michael (Stony Brook University)

**Session Classification:** Facilities

Contribution ID: 24

Type: **not specified**

## **Probing the nature of Heavy Neutral Leptons in DUNE**

*Wednesday, 21 June 2023 14:30 (20 minutes)*

**Presenter:** DEPPISCH, Frank (University College London)

**Session Classification:** Physics

Contribution ID: 25

Type: **not specified**

## **BSM talk 2**

Contribution ID: 26

Type: **not specified**

## **BSM talk 3**



Contribution ID: 27

Type: **not specified**

## LiquidO technology for ND

*Wednesday, 21 June 2023 11:00 (20 minutes)*

**Presenter:** HARTNELL, Jeffrey

**Session Classification:** Community R&D work

Contribution ID: 28

Type: **not specified**

## **ECal for the gaseous argon detector**

*Tuesday, 20 June 2023 17:00 (20 minutes)*

**Presenter:** WEBER, Alfons (JG-Uni Mainz & Fermilab)

**Session Classification:** Detector Systems

Contribution ID: 29

Type: **not specified**

## **Light collection systems for the gaseous argon detector**

*Tuesday, 20 June 2023 17:30 (20 minutes)*

**Presenter:** GONZALEZ DIAZ, Diego

**Session Classification:** Detector Systems

Contribution ID: **30**

Type: **not specified**

## **Gas argon detector magnet design**

*Tuesday, 20 June 2023 16:30 (20 minutes)*

**Presenter:** PALLAVICINI, Marco (INFN and University of Genova)

**Session Classification:** Detector Systems

Contribution ID: 31

Type: **not specified**

## **Lessons learned from recent gas TPCs**

*Thursday, 22 June 2023 11:00 (20 minutes)*

**Presenter:** DEISTING, Alexander (Royal Holloway University of London)

**Session Classification:** Detector Systems

Contribution ID: 32

Type: **not specified**

## **WBLS in the gas argon detector**

*Thursday, 22 June 2023 11:30 (20 minutes)*

**Presenter:** WILKING, Michael (Stony Brook University)

**Session Classification:** Detector Systems

Contribution ID: 33

Type: **not specified**

## **Reconstruction for the gaseous argon detector**

**Presenter:** JUNK, Thomas (Fermilab)

**Session Classification:** Detector Systems

Contribution ID: 34

Type: **not specified**

## **Neutrino-nucleus interaction physics at DUNE ND**

*Tuesday, 20 June 2023 15:00 (20 minutes)*

**Presenter:** ALVAREZ-RUSO, Luis (University of Valencia)

**Session Classification:** Physics



Contribution ID: 35

Type: **not specified**

## **BSM opportunities at DUNE Phase II**

*Wednesday, 21 June 2023 14:00 (20 minutes)*

**Presenter:** PASCOLI, Silvia (University of Durham)

**Session Classification:** Physics

Contribution ID: 36

Type: **not specified**

## **Dark Matter / Dark Sector searches with the DUNE Near Detector**

*Wednesday, 21 June 2023 15:00 (20 minutes)*

**Presenters:** KELLY, Kevin; KELLY, Kevin

**Session Classification:** Physics

Contribution ID: 37

Type: **not specified**

## Where do we go from here?

*Thursday, 22 June 2023 15:30 (30 minutes)*

**Presenter:** SOLDNER-REMBOLD, Stefan (University of Manchester)

**Session Classification:** Closeout and discussion

Contribution ID: **38**

Type: **not specified**

## **Organising workshop report**

*Thursday, 22 June 2023 16:00 (1 hour)*

**Session Classification:** Closeout and discussion

Contribution ID: 43

Type: **not specified**

## LAPPDs for ND-GAr

**Presenter:** SANCHEZ, Mayly (Florida State University)

**Session Classification:** Community R&D work

Contribution ID: 44

Type: **not specified**

## **ND-GAr ECAL: Experience from CMS HGCALE SiPM-on-tile**

*Thursday, 22 June 2023 14:30 (20 minutes)*

**Presenters:** KOLBERG, Ted (Florida State University); KOLBERG, Ted (Florida State University)

**Session Classification:** Community R&D work

Contribution ID: 45

Type: **not specified**

## **Scintillation of Ar-CF<sub>4</sub> mixtures towards NDGAr**

*Wednesday, 21 June 2023 11:30 (20 minutes)*

**Presenter:** AMEDO MARTÍNEZ, Pablo (Instituto Galego de Física de Altas Enerxías (USC))

**Session Classification:** Community R&D work

Contribution ID: 46

Type: **not specified**

## **Impurity mitigation in ND-GAr**

*Wednesday, 21 June 2023 12:00 (20 minutes)*

**Presenter:** G. BALDONEDO, Jacobo (Universidade de Vigo)

**Session Classification:** Community R&D work



Contribution ID: 47

Type: **not specified**

## Exploring nucleons and nuclei with SAND

*Thursday, 22 June 2023 10:00 (20 minutes)*

**Presenters:** PETTI, Roberto (University of South Carolina); PETTI, Roberto (Univ. of South Carolina)

**Session Classification:** Detector Systems

Contribution ID: 48

Type: **not specified**

## **Baseline effects for a sterile at DUNE**

*Tuesday, 20 June 2023 15:30 (20 minutes)*

**Presenter:** PENEDO, João (CFTP/IST, Lisbon)

**Session Classification:** Physics

Contribution ID: 49

Type: **not specified**

## **Search for sub-millicharged particles (SUBMET)**

*Wednesday, 21 June 2023 15:30 (20 minutes)*

**Presenter:** YOO, Jaehyeok (Korea University)

**Session Classification:** Physics

Contribution ID: 50

Type: **not specified**

## Liquid Argon Near Detector in Phase II

*Wednesday, 21 June 2023 17:30 (20 minutes)*

**Presenter:** PARSA, Saba (University of Bern)

**Session Classification:** Facilities

Contribution ID: 51

Type: **not specified**

## Workshop photo

*Wednesday, 21 June 2023 10:20 (5 minutes)*

**Session Classification:** Detector Systems

Contribution ID: 52

Type: **not specified**

## **LAPPDs for ND-GAr**

*Thursday, 22 June 2023 12:00 (20 minutes)*

**Presenter:** SANCHEZ, Mayly (Florida State University)

**Session Classification:** Detector Systems

Contribution ID: 53

Type: **not specified**

## **Reconstruction for the gaseous argon detector**

*Thursday, 22 June 2023 14:00 (20 minutes)*

**Presenter:** JUNK, Thomas (Fermilab)

**Session Classification:** Community R&D work