

Nu2022 Program (Tentative)

2022.05.17.

May 30th (M) – June 4th (Sat.), 2022

May 30th (M)

May 30 (M): 15:00 – 16:30 KST, 08:00-09:30 EU, 01:00-02:30 CDT, US

Poster Metaverse I-a @Dirac

Long Break (4.5 hrs)

May 30 (M): 21:00 – 22:05 KST, 14:00-15:05 EU, 07:00-08:05 CDT, US

Opening session: 65 min [Sunny Seo](#)

- Welcome 1 - 5 min **Chung Wook Kim** (Korea Institute for Advanced Study)
- Welcome 2 - 5 min **Tae Won Noh**, KPS president (Korean Physical Society)
- Welcome 3 - 5 min **Do Young Noh**, IBS president (Institute for Basic Science)
- Introduction - 10 min **Yeongduk Kim** (Institute for Basic Science)
- Opening talk: the 50th Anniversary -- 35+5min **Chris Quigg** (Fermilab)

Short Break (10 min)

May 30 (M): 22:15 – 23:45 KST, 15:15-16:45 EU, 08:15-09:45 CDT, US

S1: Sterile Neutrino 1: [Eligio Lisi](#)

1. Quo Vadis, Sterile Neutrino? - The Current Status of Searches for a 4th Neutrino –35+5 min **Joachim Kopp** (CERN & JGU Mainz)

2. Experimental results with reactors 27+3 min **Matthieu Licciardi** (CNRS - LPSC Grenoble)

3. NEOS-II new results – 18+2 min **Jinyu Kim** (IBS/CUP)

Long Break (6 hrs 15 min)

May 31st (Tu)

May 31 (Tu): 06:00 – 07:30 KST / 23:00-24:30 EU / 16:00-17:30 CDT, US

Poster Metaverse I-b @Dirac

Long Break (1.5 hrs)

May 31 (Tu): 09:00 – 10:30 KST / 02:00-03:30 EU / 19:00-20:30 CDT, US

S2: Sterile Neutrino 2: [Jon Link](#)

1. JSNS2 new results – 23+2 min **Jungsic Park** (Kyungpook National University)
2. Low-energy excess and new physics searches with MicroBooNE – 28+3min **Hanyu Wei** (Louisiana State University)
3. ICARUS + SBND – 15+2 min **Anne Schukraft** (Fermilab)
4. The BEST Experiment – 15+2 min **Steve Elliott** (Los Alamos National Laboratory)

Break (30 min)

May 31 (Tu): 11:00 – 12:30 KST / 04:00-05:30 EU / 21:00-22:30 CDT, US

S3: Sterile Neutrino 3: [Janet Conrad](#)

1. Sterile neutrinos and other scenarios –27+3min **Carlos Argüelles-Delgado (Harvard University)**
 2. New results from laboratory keV neutrino searches –27+3 min **Kyle Leach (Colorado School of Mines)**
 3. Prospects for new eV-scale sterile neutrino searches – 27+3 min **Daniel Winklehner (MIT) & Joshua Spitz (University of Michigan) joint talk**
- Long Break (2.5 hrs)**

May 31 (Tu): 15:00 – 16:30 KST / 08:00-09:30 EU / 01:00-02:30 CDT, US

Poster Metaverse II-a @Dirac

Break (30 min)

May 31 (Tu): 17:00 – 18:30 KST / 10:00-11:30 EU / 03:00-04:30 CDT, US

S4: $0\nu\beta\beta$ I: [Matteo Agostini](#)

1. Overview of current experimental and theoretical status on $0\nu\beta\beta$ – 28+3 min **Fedor Šimkovic (Comenius University in Bratislava)**
2. KamLAND-Zen – 15+2 min **Azusa Gando (RCNS, Tohoku University)**
3. Updated results and progresses of the CUORE experiment – 15+2min **Irene Nutini (INFN Milano Bicocca)**
4. CUPID, CUPID-0, CUPID-Mo – 24+2 min **Zolotarova Anastasiia (IRFU, CEA, University of Paris-Saclay)**

Long Break (3 hrs)

May 31 (Tu): 21:30 – 23:00 KST / 14:30-16:00 EU / 07:30-09:00 CDT, US

S5: $0\nu\beta\beta$ II: [Andrea Giuliani](#)

1. AMoRE new results – 15+2 min **Yoomin Oh (IBS)**
2. NEXT (+ PandaX-III) – 15+2 min **Michel Sorel (IFIC, CSIC - Univ. of Valencia)**
3. $0\nu\beta\beta$ search in Ge Detectors – 25+2 min **Julieta Gruszko (University of North Carolina at Chapel Hill)**
4. Perspectives of future $0\nu\beta\beta$ experiments – 27+2 min **Stefan Schönert (Technical University of Munich)**

Long Break (7 hrs)

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----- **June 1st (W)** -----

June 1 (W): 06:00 – 07:30 KST, 23:00-24:30 EU, 16:00-17:30 CDT, US

Poster Metaverse II-b @Dirac

Long Break (1.5 hrs)

June 1 (W): 09:00 – 10:30 KST / 02:00-03:30 EU / 19:00-20:30 CDT, US

S6: Reactor ν osc. 1: [Jun Cao](#)

1. Latest Results from Daya Bay – 23+2 min **Kam-Biu Luk (Hong Kong University, University of California at Berkeley, and LBNL)**
2. Results of reactor antineutrinos at RENO – 23+2 min **Kyung Kwang Joo (Chonnam National University)**
3. Reactor Neutrino Flux and Spectrum Measurements – 35+5 min **Nathaniel Bowden (LLNL)**

Break (30 min)

June 1 (W): 11:00 – 12:30 KST / 04:00-05:30 EU / 21:00-22:30 CDT, US

S7: Reactor nu osc. 2: [Adam Bernstein](#)

1. JUNO Status & Prospects – 27+3 min **Jie Zhao (IHEP)**
2. Developments in reactor neutrino modeling (Theory) – 27+3 min **Petr Vogel (Caltech)**
3. Neutrino science and nuclear security – 27+3 min **Patrick Huber (Virginia Tech)**

Long Break (2.5 hrs)

June 1 (W): 15:00 – 16:30 KST / 08:00-09:30 EU / 01:00-02:30 CDT, US

Poster Metaverse III-a @Majorana

Break (30 min)

June 1 (W): 17:00 – 18:40 KST / 10:00-11:30 EU / 03:00-04:30 CDT, US

S8: Nu mass: [Guido Drexlin](#)

1. Theoretical models on nu mass - 27+3 min **Ferruccio Feruglio (INFN - Padova)**
2. KATRIN new results - 25+2 min **Thierry Lasserre (CEA Saclay Irfu DPhP, APC, TUM)**
3. ECHO-1k new results and HOLMES - 20+2 min **Loredana Gastaldo (KIP, Heidelberg University)**
5. PTOLEMY new results/technologies and status - 18+3 min **Marcello Messina (INFN)**

Long Break (2 hrs 50 min)

June 1 (W): 21:30 – 23:00 KST / 14:30-16:00 EU / 07:30-09:00 CDT, US

S9: Accelerator nu osc. 1: [Mark Messier](#)

1. Three neutrino phenomenology and global analyses - 27+3 min **Thomas Schwetz (KIT)**
2. Recent results from T2K – 27+3 min **Christophe Bronner (Kyoto University)**
3. NOvA – 27+3 min **Jeff Hartnell (University of Sussex)**

Long Break (7 hrs)

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----- **June 2nd (Th)** -----

June 2 (Th): 06:00 – 07:30 KST / 23:00-24:30 EU / 16:00-17:30 CDT, US

Poster Metaverse III-b @Majorana

Long Break (1.5 hrs)

June 2 (Th): 09:00 – 10:31 KST / 02:00-03:30 EU / 19:00-20:30 CDT, US

S10: Accelerator nu osc. 2: : [Hiro Tanaka](#)

1. Flavor mixing, CP violation, and Unitarity (Theory) – 25+2 min **Peter Denton (BNL)**
2. Hyper-K – 20+2 min **Jeanne Wilson (King's College London)**
3. DUNE – 20+2 min **Mathew Muether (Wichita State Univ.)**
4. Reviews on neutrino fluxes (accel. nu) 18+2 min **Megan FRIEND (KEK)**

Break (29 min)

June 2 (Th): 11:00 – 12:22 KST / 04:00-05:30 EU / 21:00-22:30 CDT, US

S11: Accelerator nu osc. 3: [Elizabeth Worcester](#)

1. T2HK/KNO, ESSnuSB, and THEIA –27+3min **Hyunsoo Kim (Sejong University)**
2. Synergy of HK & DUNE – 27+3 min **Osamu Yasuda (Tokyo Metropolitan Univ.)**

3. Electrons-4-Neutrinos (e4nu): Trailblazing the Precision Neutrino Oscillations Era 20+2 min
Or Hen (MIT)
Long Break (2 hrs 38 min)

June 2 (Th): 15:00 – 16:30 KST / 08:00-09:30 EU / 01:00-02:30 CDT, US

S12: Atmospheric Neutrinos: [Kimihiro Okumura](#)

1. Super-K – 23+2 min **Linyan Wan (Boston University)**
2. IceCube – 23+2 min **Tom Stuttard (Niels Bohr Institute)**
3. Reviews on neutrino fluxes (low E atm nu) – 18+2 min **Kazufumi Sato (ICRR, University of Tokyo)**

3. Progress in high-energy atmospheric neutrino flux calculations – 18+2 min

Anatoli Fedynitch (Institute of Physics, Academia Sinica)

Break (30 min)

June 2 (Th): 17:00 – 18:00 KST / 10:00-11:00 EU / 03:00-04:00 CDT, US

Public Talk: Oscillating Neutrinos - a key to understanding the Universe **Takaaki Kajita (ICRR, University of Tokyo)**

Long Break (3.5 hrs)

June 2 (Th): 21:30 – 23:20 KST / 14:30-16:00 EU / 07:30-09:00 CDT, US

S13: Solar/DSNB Neutrinos: [Gabriel Orebi Gann](#)

1. Overview of the solar neutrino observation – 27+3 min **Yusuke Koshio (Okayama University)**
2. Borexino CNO new result w/ full data set – 27+3 min **Barbara Caccianiga (National Institute for Nuclear Physics (INFN-Milano))**
3. DSNB neutrino overview and new results – 27+3 min **Andrew Mastbaum (Rutgers University)**
4. SK-Gd - 18+2 min **Mark Vagins (Kavli IPMU, University of Tokyo)**

Long Break (6 hrs 40 min)

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----- **June 3rd (F)** -----

June 3 (F): 06:00 – 07:30 KST, 23:00-24:30 EU, 16:00-17:30 CDT, US

Poster Metaverse IV-b @Majorana

Long Break (1.5 hrs)

June 3 (F): 09:00 – 10:30 KST / 02:00-03:30 EU / 19:00-20:30 CDT, US

S14: Astrophysical nu 1: [Paschal Coyle](#)

1. Multi-messenger astronomy – 27+3 min **Imre Bartos (University of Florida)**
2. Review of the searches for cosmic neutrinos – 27+3 min **Julia Tjus (Bochum University)**
3. Neutrinos in supernovae and binary neutron star mergers – 27+3 min **Meng-Ru Wu (Institute of Physics, Academia Sinica)**

Break (30 min)

June 3 (F): 11:00 – 12:30 KST / 04:00-05:30 EU / 21:00-22:30 CDT, US

S15: Astrophysical nu 2: [Francis Halzen](#)

1. High-energy neutrino observations with IceCube – 27+3 min **Nahee Park (Queen's University)**
2. KM3Net – 27+3 min **Aart Heijboer (Nikhef)**
3. Baikal-GVD – 27+3 min **Zhan Dzhilkibayev**

Long Break (2.5 hrs)

June 3 (F): 15:00 – 16:30 KST / 08:00-09:30 EU / 01:00-02:30 CDT, US
Poster Metaverse IV-a @Majorana

Break (30 min)

June 3 (F): 17:00 – 18:30 KST / 10:00-11:30 EU / 03:00-04:30 CDT, US

S16: LHC Heavy Neutrino & R&D: [Manfred Lindner](#)

1. LHC heavy neutrino program – 27+3 min **Jie Xiao (Peking University)**
2. Overview on hybrid Cherenkov/scintillation detectors 20+2 min **Michael Wurm (JGU Mainz)**
3. Optimized scintillators for future neutrino detectors - 18+2 min **Christian Buck (MPIK)**
4. LiquidO Opaque Neutrino Detection: New Results & Status - 16+2 min **Anatael Cabrera (IJCLab (Orsay) - CNRS/IN2P3 - University of Paris-Saclay)**

Long Break (3 hrs)

June 3 (F): 21:30 – 23:30 KST / 14:30-16:30 EU / 07:30-09:30 CDT, US

S17: Nu Interaction I: [Mohammad Sajjad Athar](#)

1. Theory of neutrino interactions –27+3 min **Natalie Jachowicz (Ghent University)**
2. Overview of recent neutrino cross section measurements –27+3 min **Laura Fileds (University of Notre Dame)**
3. Prospect on nu interactions in future nu oscillation experiments –27+3 min **Xianguo Lu (University of Warwick)**
4. NSI (Theory) – 27+3 min **Yasaman Farzan (IPM)**

Long Break (9.5 hrs)

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----- June 4th (Sat) -----

June 4 (Sat): 09:00 – 10:47 KST / 02:00-03:47 EU / 19:00-20:47 CDT, US

S18: Nu Interaction II: [Kate Scholberg](#)

1. Overview of current status and prospects on CEvNS (Exp.) –27+3 min **Carla Bonifazi (ICIFI – UNSAM / CONICET)**
2. New results from COHERENT – 27+3 min **Daniel Pershey (Duke University)**
3. New physics search w/ CEvNS (Theory) –27+3 min **Carlo Giunti (INFN – Torino)**
4. MicroBooNE x-section talk -- 15+2 min **Steven Gardiner (Fermilab)**

Break (13 min)

June 4 (Sat): 11:00 – 12:40 KST / 04:00-05:40 EU / 21:00-22:40 CDT, US

S19: New Neutrino Technologies II: [Tsuyoshi Nakaya](#)

1. LAr TPC R&D - 20+2 min **Angela Fava (Fermilab)**
2. HK neutrino beam -- 16+2 min **Tetsuro Sekiguchi (KEK)**
3. DUNE neutrino beam --16+2 min **Rob Ainsworth (Fermilab)**
4. Overview on emulsion detector technique --20+2 min **Toshiyuki Nakano (Nagoya University) & Hiroki Rojuko (Nagoya University)**
5. Project 8: Results and Prospects - 18+2 min **Elise Novitski (University of Washington)**

Long Break (3hrs 20 min)

June 4 (Sat): 16:00 – 17:30 KST / 09:00-10:30 EU / 02:00-03:30 CDT, US

S20: Neutrinos and Cosmology: [Ivonne Wong](#)

1. Nu mass & number constraints from cosmology – 27+3 min **Julien Lesgourgues (RWTH Aachen University)**
2. Neutrino physics with DM detector – 27+3 min **Tim Wolf (MPIK)**
3. Cosmological probes of non-standard neutrino scenarios – 27+3 min **Olga Mena (CSIC-UV, ICP)**

Long Break (2.5 hrs)

June 4 (Sat): 20:00 – 21:30 KST / 13:00-14:30 EU / 06:00-07:30 CDT, US

S21: BSM searches in neutrinos: [Sin Kyu Kang](#)

1. Overview talk (Theory) – 27+3 min **Pilar Coloma (IFT UAM-CSIC)**
2. Neutrino physics at LHC: current experiments and future prospects – 27+3 min **Antonia Di Crescenzo (CERN, Napoli "Federico II" and INFN) & Felix Kling (DESY) joint talk**
3. Proton decay – 27+3 min **Tommy Ohlsson (KTH)**

Break (30 min)

June 4 (Sat): 22:00 – 23:30 KST / 15:00-16:30 EU / 08:00-09:30 CDT, US

Closing session: 90 min [JongHee Yoo](#)

- Theoretical Outlook -- 30+5 min **Silvia Pascoli (University of Bologna)**
- Experimental Outlook -- 30+5 min **Yifang Wang (IHEP)**
- Closing remarks -- 10 min **Sunny Seo (IBS)**
- INC report -- 10 min **Stephen Parke (Fermilab)**

The END

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