Welcome to Neutrino 2022

XXX International Conference on Neutrino Physics and Astrophysics

May 30 ~ June 4

Yeongduk Kim

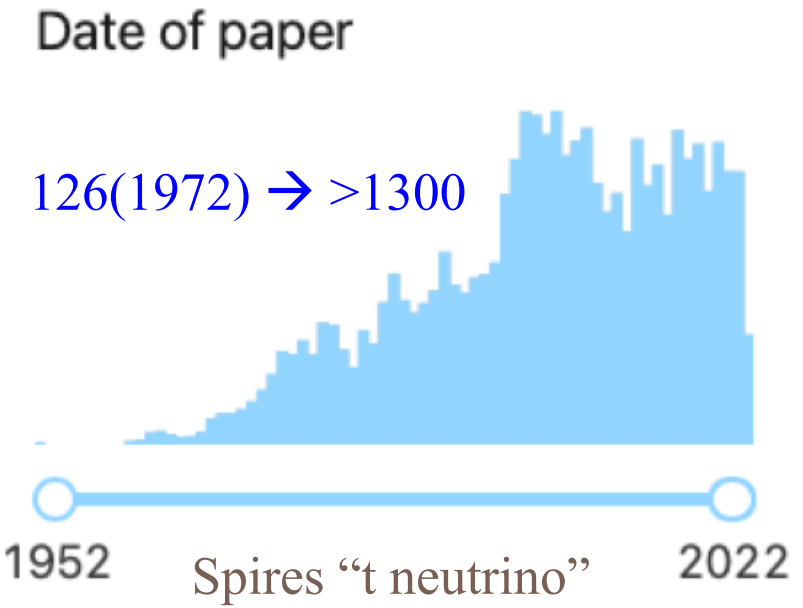
Co-chair with Sunny Seo

It's 50th anniversary !

From András Patkós article, **fizikai szemle, 2022**

13th of June 1972: Feynman and Pontecorvo planting

June 2021: Memorial trees of the First INC



No of Participants @ INC :
139(1972) → ~ 1000

Like the memorial trees, Neutrino Conference and neutrino physics have grown mature.

Conference overview

- Visit the website https://neutrino2022.org/
  - You already logged in with ID/PW.
- The conference consists of ;
  1. Talks : All talks are invited plenary.
  2. Posters : Posters are in the metaverse.
  3. Public talk : by Takaaki Kajita,
  4. Virtual Seoul : Exhibition hall, Seoul theater etc.
- Participants
  - Number of registered : 1,272 participants from 44 countries
  - Number of posters submitted : 657

Topics

16 Topics
21 Sessions

Will begin S1 after opening.

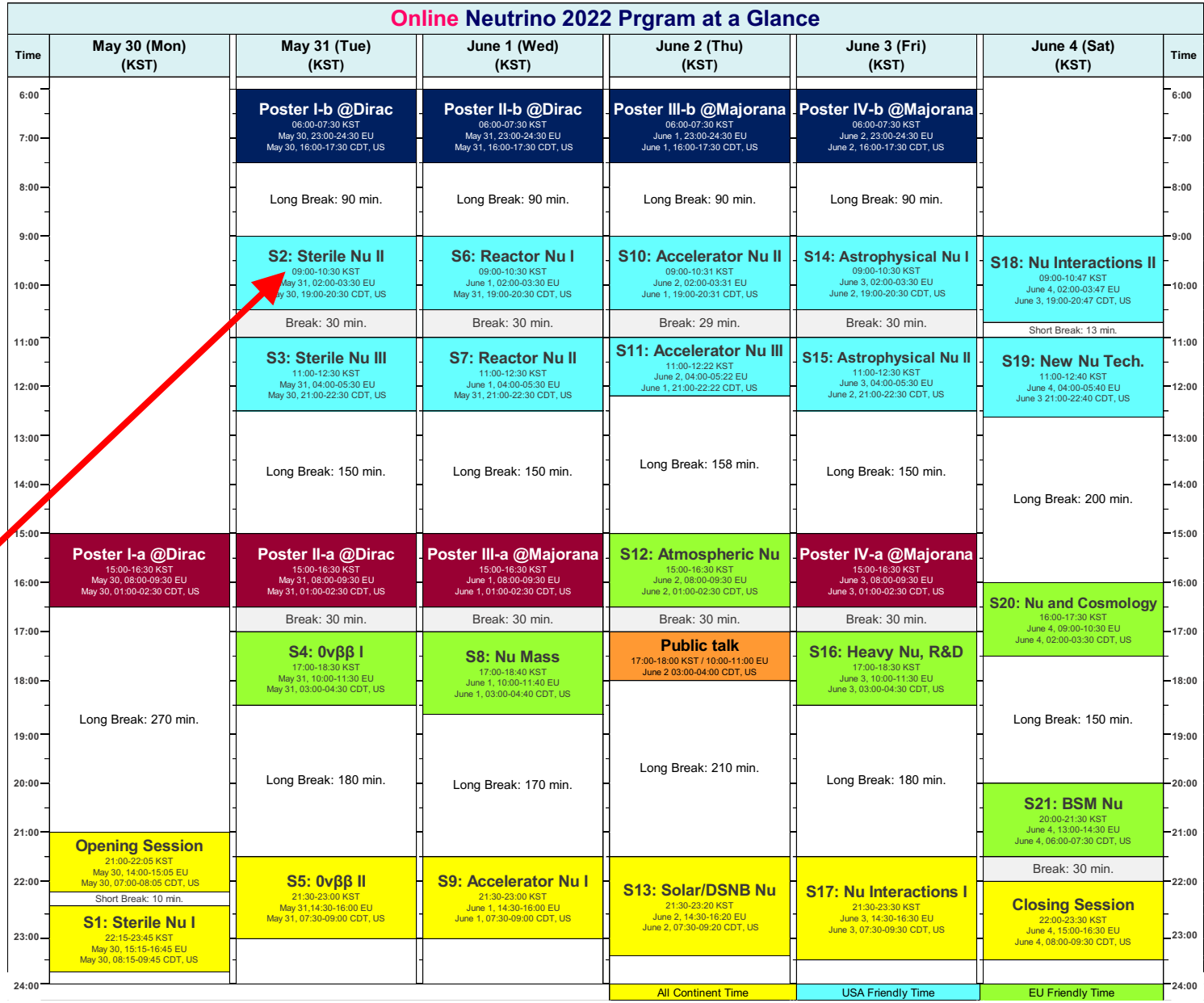
Topic		Session	No. of posters
T01	Neutrino oscillation	S9	76
T02	Leptonic CP violation	S10	3
T03	Neutrino mass	S8	36
T04	Neutrinoless double beta decay	S4, S5	70
T05	Neutrino interactions	S17, S18	65
T06	Reactor neutrinos	S6, S7	53
T07	Accelerator neutrinos	S9, S10, S11	26
T08	Geo-neutrinos	S13	2
T09	Atmospheric neutrinos	S12	20
T10	Solar neutrinos	S13	19
T11	Diffuse Supernova Neutrino Background	S13	5
T12	Astrophysical neutrinos	S14, S15	84
T13	Neutrinos and Cosmology	S20	6
T14	Sterile neutrinos	S1, S2, S3	41
T15	BSM searches in neutrinos	S21	53
T16	New neutrino technologies	S19	72
T17	Other		26
Total			657

Features of the program

- Omicron hit Korea end of Jan. 2022, peaked March 20th, and LOC decided to go on-line only.
- To maximize the number of participants, the program spans from 6am to 12 pm in Korean Standard Time (KST).
- There are Europe-friendly and US-friendly talk and poster sessions and long breaks between sessions.
- No. of Poster sessions increased to 8 to accommodate in metaverse format.
- Registration is open until June 4th.
- Go to homepage, https://neutrino2022.org, and login to begin.

Program at a glance (KST)

This is an active map. If you click the session, it will go to the "detailed program" page.



Program at a glance (CDT, US)

7:30 AM

10:30 PM

Program at a glance (CEST, EU)

8:00 AM

4:00 PM

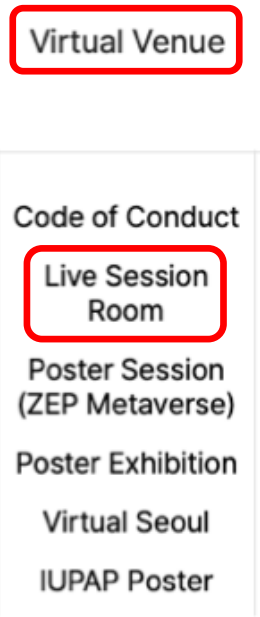
11:00 PM

12:30 PM

Talks

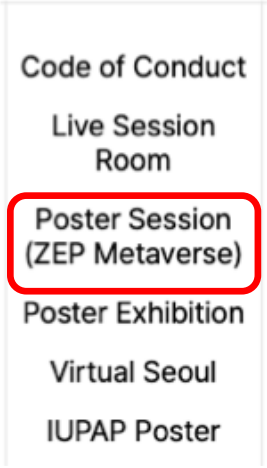
- Speakers ;
  - Recommended to submit the slide file 1 day before the talk and slides will be available in the ”detailed program” page.
  - Should connect with the zoom link sent by email for your talk.
  - Please test the zoom connection before your talk, as instructed by email.
  - Slides will appear “indico” and zenodo page after the conference.

- Participants;
  - “Virtual Venue” → “Live session room”
  - Click “Live” button with a Passcode.
  - For questions, click “Q&A” button and enter your name and the question text.
  - All the questions will be displayed in “Chat” window.
  - Further question, please use “Slack”.

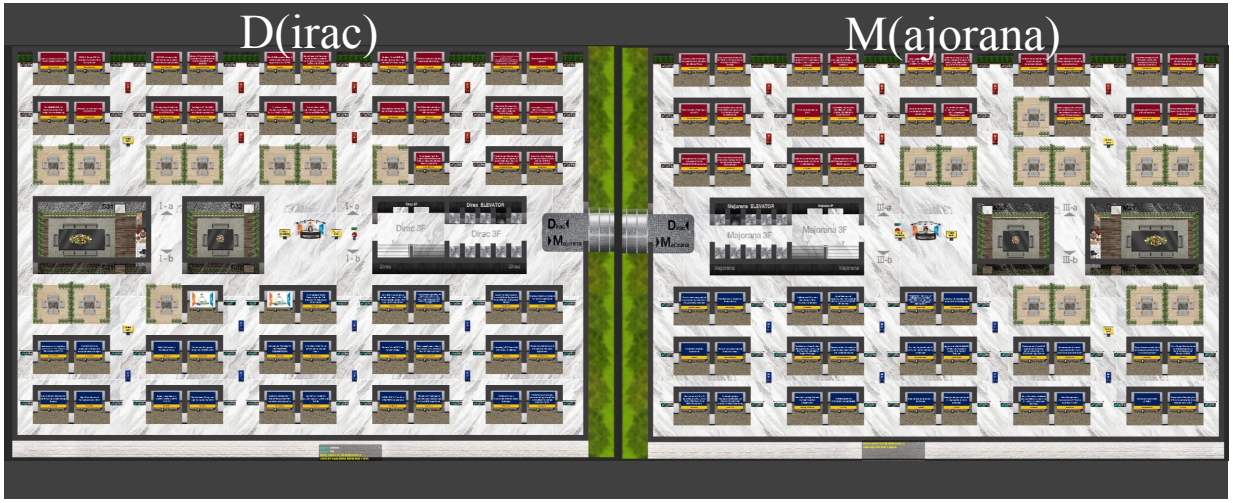


Metaverse – poster session

Virtual Venue



- The entire posters can be viewed at a Zep based metaverse.
- Go to "Poster session (ZEP metaverse)"
- 2nd-8th floors, D and M rooms for each floor.
- Double click where you want to go.
- Press "F", to see the poster in a separate window in the browser.
- Ask question to the presenter and talk with people in the poster room.



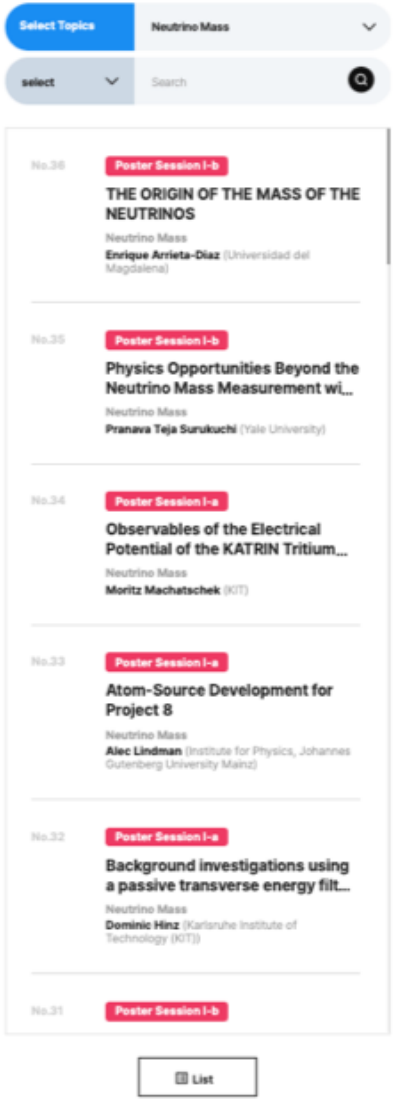
Presenter Location

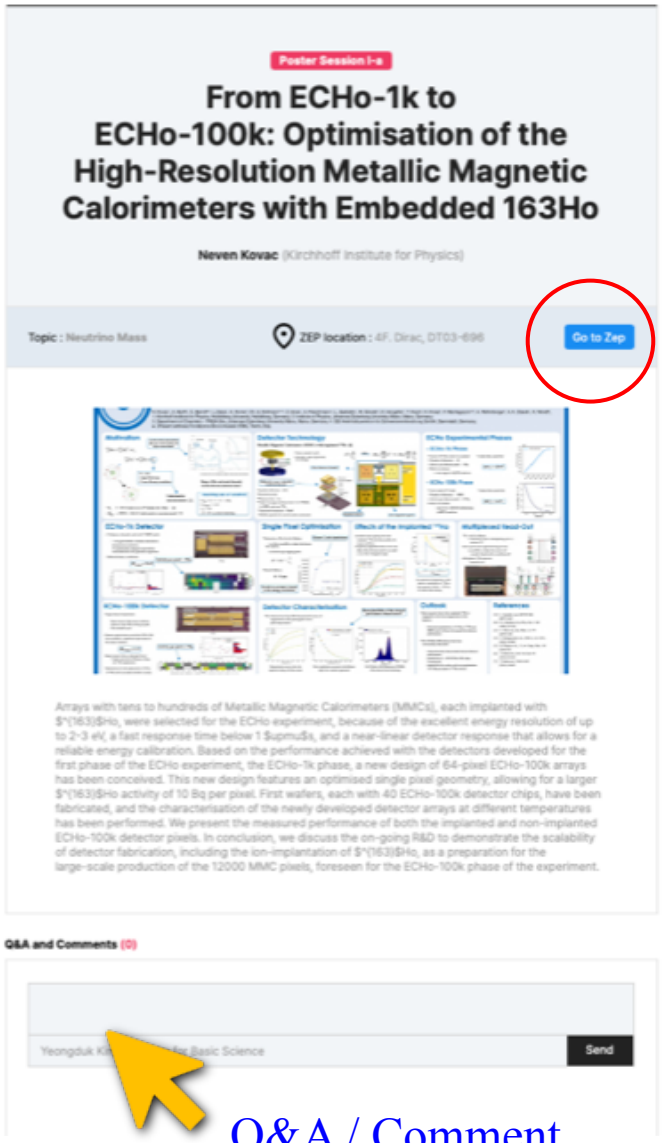
Poster arrangement

Session (KST time)	Building	Floor
1-a (5/30, 3-4:30 pm) 1-b (5/31, 6-7:30 am)	Dirac	2F : Sterile Nus 3F : Neutrinoless DBD 4F : Neutrinoless DBD, Nu mass
II-a (5/31, 3-4:30 pm) II-b (6/1, 6-7:30 am)	Dirac	5F : Nus and Cosmology, BSM 6F : BSM, Reactor Nus 7F : Reactor Nus, Nu Oscillation 8F : Nu Oscillation, Leptonic CP Violation
III-a (6/1, 3-4:30 pm) III-b (6/2, 6-7:30 am)	Majorana	2F : Accelerator Nus, Atmospheric Nus 3F : Solar Neutrinos, DSNB, New Nu Tech. 4F : New Nu Tech.
IV-a (6/3, 3-4:30 pm) IV-b (6/3, 6-7:30 am)	Majorana	5F : Astrophysical Nus 6F : Astrophysical Nus 7F : Nu Interactions 8F : Nu Interactions, Other

Poster exhibition

- The entire poster can be found on this “Poster Exhibition” too.
- If participants are not able to attend the poster session, leave a question in Q&A and the question will be forwarded to the poster presenter.
- If click “Go to Zep” button, it will go to the floor of that poster of the Metaverse.





Q&A / Comment

Public talk

- Public talk by Prof. Takaaki Kajita is on June 2nd, 5pm.
- You can join the talk through "virtual Seoul" and connecting to "open stage" or via Youtube.
- Goto "Public Talk" menu.

Slack

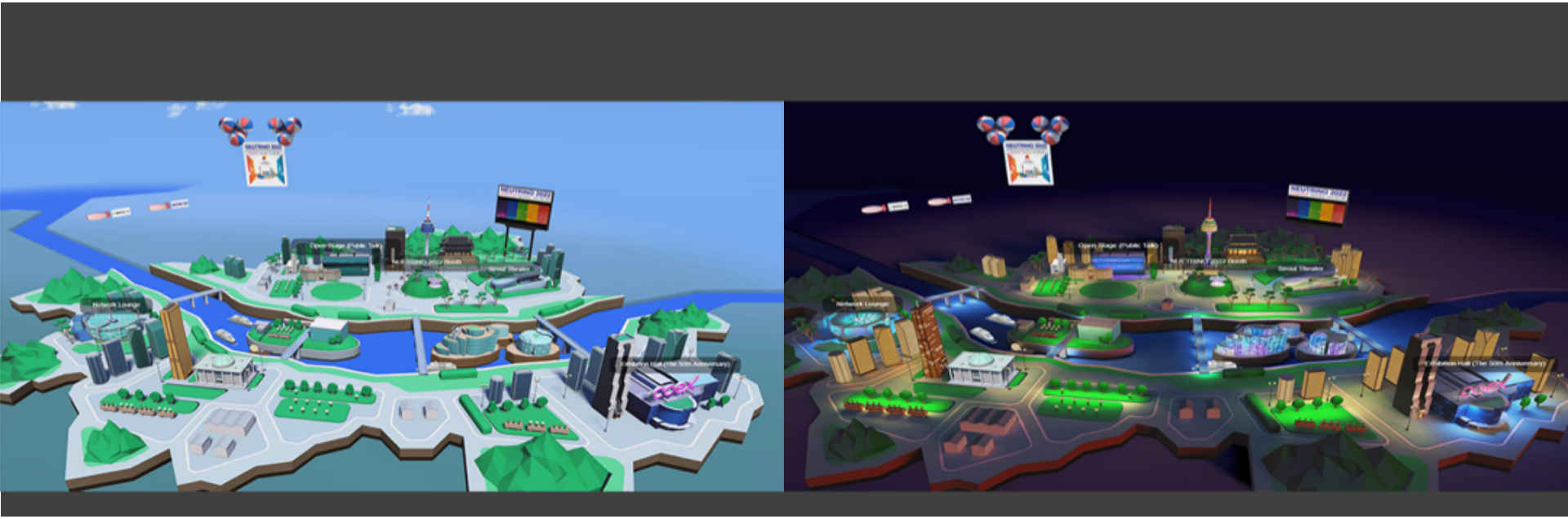
- We have opened Slack channels for information exchange between participants.

- The invitation letter has been sent to registrants.

- Slack Channels have been set up :
  1. **talks_<session name>:** After the session, you can leave further questions or have a variety of discussions about the session. Ex) # talks_astro_nu
  2. **poster_sess_<session>:** You can ask questions or discuss about posters. Ex) # poster_sess_1
  3. **Announcements :** Important notices are displayed here.

Virtual Seoul

- **Various events of NEUTRINO 2022**
  - Open Stage for participating public talk
  - Exhibition Hall for the 50th anniversary
  - Network Lounge where you can **make your own Korean name**
  - Seoul Theater, a video of Seoul that has both traditional and modern beauty.



50th anniversary

"The 50th Anniversary" menu

INTERNATIONAL CONFERENCE ON NEUTRINO PHYSICS AND ASTROPHYSICS 1972–2022

Stephen Parke

Neutrino '72 had two exceptional aspects: first, it was the dawn of the Glashow–Weinberg–Salam era where neutrino physics was of paramount importance for the discovery of a new weak force of Nature, mediated by the Z0 boson, and unified the weak and electromagnet-ic interactions. This lead to the SU(3)×SU(2)×U(1) gauge theory of the Standard Model, a monumental step in our understanding of Strong, Weak and Electro-magnetic Interactions. Second, this conference launched what is now the International Conference on Neutrino Physics and Astrophysics Series, a conference dedicated to the Neutrino.

In June of 2022, the 50th anniversary of Neutrino '72, thirty such Neutrino Conferences will have been held in locations in Europe, North America and Asia/ Oceania. George Marx, as founder of this series, pre-sided over the first twenty of these meetings. Many important results in neutrino physics have been re-ported at one of these conferences. Ray Davis and John Bahcall frequently reported on the updated measurements and calculations, respectively, of the solar neutrino flux puzzle. Other examples are the definitive discovery of neutrino oscillations by Super-KamiokaNDE at the 18th conference in 1998 and the SNO results on solar neutrinos fluxes at

Code of Conduct

Just as with an in-person conference, participants of the online Neutrino 2022 conference will conduct themselves in a professional manner that is welcoming to all and free from any form of discrimination, harassment, bullying, or retaliation. Participants will treat each other with respect and consideration to create a collegial, inclusive, and professional environment. Participants will avoid any inappropriate actions or statements based on individual characteristics of any kind. Disruptive behavior or harassment of any kind will not be tolerated. Harassment includes but is not limited to inappropriate or intimidating behavior or language, unwelcome jokes or comments, unwanted attention, and stalking. Participants will abide by this code in all virtual and professional activities associated with the conference. In addition, participants in the online conference will also be required to share their full identity (first and last names) in all online platforms and virtual environments connected to the conference. Sanctions for violations of this code may range from verbal warning, to ejection from the online conference, to notifying appropriate authorities, at the discretion of the organizers.

If you have witnessed or experienced a violation of this Code of Conduct, you can submit an **online report**. Reports can be sent anonymously. Such reports will be viewable only by the Neutrino 2022 conference Co-Chairs: Yeongduk Kim, Sunny Seo. You are also welcome to send a direct email to any or all of the two Co-Chairs.

Hosted by

Supported by

Contacts, ….

- General questions : office@neutrino2022.org
- Talks : 1.sunny.seo@gmail.com
- Posters : office@neutrino2022.org

The organizers wish all of you enjoy the monumental conference !

Let’s start the conference talks !