

K-Neutrino Symposium 2025

김시연

중앙대학교 물리학과

중앙대 고에너지물리 연구센터

2025. 06. 25

Thursday 26 December 2019

Opening - 102-106 (10:00-10:10)

Dark matter and next-generation neutrino experiments - 102-106 (10:10-10:50)

- Presenters: SHIN, Seodong (CTPU-IBS)

Reactor neutrino experiments in Korea - 102-106 (10:50-11:30)

- Presenters: OH, Yoomin (Center for Underground Physics, Institute for Basic Science)

JUNO and perspective of neutrino experiments in China - 102-106 (11:30-12:10)

- Presenters: SMIRNOV, Mikhail (Sun Yat-Sen Univ.)

Lunch & Coffee - University Club (11F) (12:20-13:20)

JSNS² and Super-K upgrade - 102-106 (13:30-14:10)

- Presenters: PARK, Jungsic (KEK)

IceCube - 102-106 (14:10-14:50)

- Presenters: IN, Seongjin (Sungkyunkwan Univ)

DUNE Near Detector and T2K upgrade - 102-106 (14:50-15:30)

- Presenters: YANG, Guang (Stony Brook Univ.)

Break - 102-106 (15:30-15:50)

DUNE in Korea - 102-106 (15:50-16:10)

- Presenters: ., Kim Siyeon (Chung-Ang University)

Discussion - 102-106 (16:10-17:00)

- Presenters: HA, Chang Hyon (CUP-IBS)



K-Neutrino Pilot

K- Neutrino 2022, July 15

- 주관: 중앙대 고에너지물리연구센터
- 등록인원 76명 (중앙대 28)



K- Neutrino 2022, July 15

K-Neutrino Symposium 2022

	Welcome Coffee		09:30 - 09:50
	Opening	Kim Siyeon (CAU)	09:50 - 10:00
Session 1 (Seodong Shin)	A study of leptonic CP violation	Sin Kyu Kang (Seoul Tech)	10:00 - 10:25
	DUNE ND and Neutron Study	Sunwoo Gwon (CAU)	10:25 - 10:50
	JSNS2 & JSNS2 II Experiments	Jungsic Park (KNU)	10:50 - 11:15
	AMoRE & NEOS Experiments	Yoomin Oh (IBS)	11:15 - 11:40
	Q&A		11:40 - 11:50
	Lunch		11:50 - 13:10

	Lunch		11:50 - 13:10
Session 2 (Kang Young Lee)	Energetic neutrinos from dark section	Eung Jin Chun (KIAS)	13:10 - 13:35
	COHERENT	Jonghee Yoo (SNU)	13:35 - 14:00
	NEON	Hyunsu Lee (IBS)	14:00 - 14:25
	<u>SND@LHC / SHiP</u>	Chun Sil Yoon (GNU)	14:25 - 14:50
	Q&A		14:50 - 15:00
	Break		15:00 - 15:30
Session 3 (Yu Seon Jeong)	Super-K	Koun Choi (IBS)	15:30 - 15:55
	Dark matter meets neutrino.	Ki-Young Choi (SKKU)	15:55 - 16:20
	KNO / HK	Jonghee Yoo (SNU)	16:20 - 16:45
	IceCube	Chang Hyon Ha (CAU)	16:45 - 17:10
	Q&A		17:10 - 17:20
	Closing	Kim Siyeon (CAU)	17:20 - 17:25
	Dinner		17:30 - 18:30



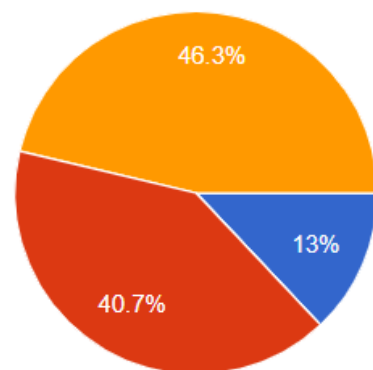
K-Neutrino 2023, July 10-21

- 등록 62명
- 7월 20일 46명 | 7월 21일 53명
- 공동 주관:
중앙대 고에너지물리연구센터
전남대 중성미자 정밀연구센터
CAU-Fermilab Cooperative R&D Center for DUNE

You are a

54 responses

 Copy

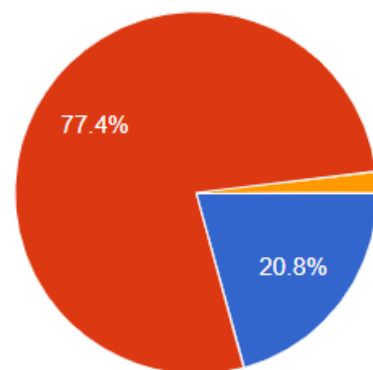


- Student (undergraduate)
- Graduate Student
- Researcher (Ph. D.)

Your research activity belongs to

53 responses

 Copy



- Theory
- Experiment
- Not yet determined

K-Neutrino 2023 등록 https://forms.gle/M9Y944GDX1BM5pWs5					
장소: 중앙대학교 서울캠퍼스(흑석역) 102관 106호, CAU R&D Center (Building 102) Rm 106 Direction and Campus Map: https://neweng.cau.ac.kr/cms/FR_CON/index.do?MENU_ID=950#					
July 20 (Thur)			July 21 (Fri)		
Potential of Neutrino Physics			Korean Activities in Experiments		
10:00			Session 4 Yoomin Oh	CPNR (Kyungkwang Joo)	10:00
10:30				NEON (Hyunsu Lee)	10:30
11:00				RENO/RENE (Jungsic Park)	11:00
11:30				NEOS (Youngju Ko)	11:30
12:00	Registration				12:00
12:30			Lunch		12:30
13:00	Session 1 Kim Siyeon	Welcome (Hyun Min Lee)			13:00
13:30		Overview on DM Search at future neutrino experiments (Doojin Kim)	Session 5 Chang Hyon Ha	AMoRE (Seung Cheon Kim)	13:30
14:00				SK/HK (Byungsu Yang)	14:00
14:30	1420-1440			IceCube (Woosik Kang)	14:30
15:00	Session 2 Jongkuk Kim	Overview of Neutrino Oscillation (Kim Siyeon)			15:00
15:30		Overview of NSI and the current status from a phenomenological point of view (Mehedi Masud)	Session 6 Youngju Ko	SND@LHC/SHiP (Chunsil Yoon)	15:30
16:00				JSNS^2 (Ryoung Gyoon Park)	16:00
16:30	1620-1640			DUNE (Sunwoo Gwon)	16:30
17:00	Session 3 Shuntaro Aoki	Neutrino Cosmology (Kensuke Akita)			17:00
17:30		Neutrino Physics from Foward Physics Facility (Yu Seon Jeong)	Session 7 Jungsic Park	HNL Search at CMS (Un-Ki Yang)	17:30
18:00				KNO (Intae Yu)	18:00
18:30	1830-1900			Concluding (Kim Siyeon)	18:30
19:00	Dinner				19:00
19:30			Dinner		19:30
20:00					20:00
20:30					20:30
21:00					21:00
Theory 40+10			Experiment 30		

K-Neutrino Symposium 2024



Jul 25, 2024, 12:00 PM → Jul 26, 2024, 4:05 PM Asia/Seoul



광주

Description

국내 중성미자 분야 이론과 실험연구자들의 모임인 세 번째 K-Neutrino 심포지움을 개최합니다. 올해는 학생 및 학문 후속세대 연구자들이 많이 참석하여, 발표하고 서로 다양한 논의를 할 수 있는 중점적인 세션을 마련하였습니다. 중성미자 연구에 대한 소통, 지식 및 경험 공유, 특히 젊은 연구층의 확대를 목적으로 하기 때문에 기본적으로 이해하기 쉬운 프로그램이 되는 것을 목표로 합니다. 관심 있는 많은 연구자들과 학생들의 참여를 기대합니다. 감사합니다.

- 일시: 2024년 7월 25일 (목) 13:00 - 26일 (금) 16:00
- 장소: 전남대학교 자연과학대학 1호관 1층 사이언스홀
- 문의: kkjoo@chonnam.ac.kr, dhmoon@chonnam.ac.kr, byang@chonnam.ac.kr

LOC: Kyung Kwang Joo (전남대), Dong Ho Moon (전남대), Byeongsu Yang (전남대), Sang Yong Kim (전남대), Ji Young Choi (전남대)

주관기관: 중성미자 정밀 연구센터 (CPNR), 우주소립자 연구소 (IUEP), 전남대 물리학과 4단계 BK21사업팀 (입자-광자 초정밀측정 고급인력 양성사업팀), 중앙대 고에너지물리연구센터 (CAU HEP Center)

K-Neutrino Symposium 2024

Jul 25, 2024, 12:00 PM → Jul 26, 2024, 4:05 PM Asia/Seoul

광주

Description

국내 중성미자 분야 이론과 실험연구자들의 모임인 세 번째 K-Neutrino 심포지움을 개최합니다. 올해는 학생 및 학문 후속세대 연구자들이 많이 참
은 연구층
여를 기대

[illegible]

K-Neutrino Symposium 2025



Jun 25, 2025, 9:35 AM → Jun 27, 2025, 5:20 PM Asia/Seoul



Kim Siyeon (Chung-Ang University)

Description 제4회 K-Neutrino 심포지움 [English](#)

zoom id: 822 820 5237

- 일시 : 2025년 6월 25일 (수) 10:00 - 27일 (금) 12:00
- 장소 : 중앙대학교 R&D 센터(102호관) 강의실 105, 106호실, 1층 로비
- 초록 마감 : 2025년 6월 16일(월) 오전 11:59
- 문의 : 프로그램 > 김시연(siyeon@cau.ac.kr)
등록 및 진행 > 박주성(juseongpark0921@gmail.com)

2025년 6월 24일까지 등록 70명

포스터 발표 43명
구두 발표 18명

이하 모든 명단은 가나다순, 알파벳순, 존칭 직위 생략함.

- 조직위원: 김시연 (CAU, Chair), 김영덕 (IBS CUP), 마수드메헤디 (CAU)
양병수 (CNU), 유종희 (SNU), 이현민 (CAU), 전응진 (KIAS), 주경광 (CNU), 하창현 (CAU)
- 주관기관:
CAU HEP Center 중앙대 고에너지물리센터
CAU NuLa 중앙대 중성미자 연구실
Chonnam National Univ. Center for Precision Neutrino Research 전남대 중성미자 정밀연구센터
Institute of Basic Sciences, Center for Underground Physics 기초과학연구원 지하실험연구단
Korea Institute for Advanced Study 고등과학원
Seoul National Univ. Particle & Astrophysics Lab. 서울대 입자천체물리연구실

June 25 Wednesday

- **11:40 Photo time** No photo, no lunch
- **11:50 Lunch** at Building 310-B4 (학식)
- **18:00 Dinner** at Shabu No.1 (샤부1번가)
전남대학교 중성미자 정밀연구센터 제공
- **Coffee and Donuts**
서울대학교 입자천체물리연구실 제공

June 26 Thursday

- **15:00 Photo time**
- **12:00 Lunch** at University Club (Building 102- 11F)
IBS 지하실험연구단 제공
- **18:00 LOC Meeting**
고등과학원 제공
- **Coffee and Donuts**
중앙대학교 중성미자연구실 제공

학생: 우수발표상 수여

ID	Collaboration	발표자	Title		S	A	B
11	AMoRE	Yoomin Oh	AMoRE Overview				
17	AMoRE	Daehoon Ha	Study of double beta decay of ^{100}Mo to the excited states of ^{100}Ru in AMoRE				
9	Coherent	Moohyun Ahn	Coherent Overview				
34	Coherent	Se Wook Oh	A 1-ton Liquid Argon CEvNS Detector	J			
3	Detector	Chang Hyon Ha	CANDY				
12	Detector	ByoungChan KIM	Feasibility studies on Computed Tomography Images and Hounsfield Unit value measurement using a new liquid scintillator				
23	Detector	Ji Hong Shin	A Particle Trajectory Detector for Incident Cosmic-Ray Muons	J			
24	Detector	Ji Young CHOI	Impurity Detection in Organometallic Complex-Based LAB Liquid Scintillators via Infrared Spectroscopy for Enhanced Neutrino Detection				
30	Detector	MINHYEONG JEON	Studies on the Characterization and development of organolead halide perovskite quantum dot liquid scintillators for next-generation detector				
40	Detector	Tae Yeong Kang	Lithium-loaded acetone-based new liquid scintillator	J			
22	DUNE	Hokyeong Nam	DUNE Reconstruction Tool Wire-Cell_ DNN ROI	J			
28	DUNE	Juseong Park	DUNE 4th module prototype WbLS	J			

- 6월 26일 목요일
- 포스터 세션 종료 후 채점지 제출 > No paper, no lunch !
- 경쟁이 아님. 평균 A 이상 우수발표상을 당연히 받아야 함.
- 마지막 토론세션 끝나고, 상장 수여식.

Physics goals

- Low energy (0~100MeV)
 - CEvNS, SNB, Solar neutrinos. Reactor neutrinos
 - BSM: sterile neutrinos, light DM, NSI, precision tests of SM
 - Astrophysics: Supernova bursts and solar models
 - Tests of neutrino mixing models
- Intermediate energy (.1 ~20 GeV)
 - Accelerator neutrinos, Atmospheric neutrinos
 - BSM: + Proton decays
 - 3-nu oscillation: mass hierarchy, CPV, tests of 3-nu paradigm.
- **Scattering experiments:**
NEON (LE), SND@LHC(HE), DUNE_ND(Intermediate)
- **Anomaly:**
RENE, JSNS²
- **BSM:**
AMoRE, SHiP, DUNE, HK
- **Oscillation:**
JSNS²(SBL), RENO(SBL), DUNE(LBL)
IceCube(atm), SK/HK(atm) DUNE_FD(atm)
- **Astrophysics:**
IceCube(UHE), SK/HK(SNB), DUNE_FD(SNB)

1:20 PM → 2:50 PM Session 2: Poster overview 1: AMoRE, NEON, DUNE, SND@LHC, SHiP, Coherent

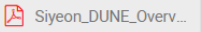
- 1:20 PM

AMoRE
Speakers: Daehoon Ha (IBS, CUP), Yoomin Oh (Center for Underground Physics, Institute for Basic Science)

🕒 15m
- 1:35 PM

NEON
Speakers: Byoung-cheol Koh (Chung-Ang University, Dept. of Physics), Gyunho Yu (IBS), Seo Hyun Lee

🕒 15m
- 1:50 PM

DUNE
Speakers: Hokyong Nam (Chung-Ang University), Juseong Park (CAU), Prof. Kim Siyeon (Chung-Ang University), Mehedi Masud (Chung-Ang University), Mehedi Masud (Chung-Ang University), Nishat Fiza, Suhyeon Kim (Chung-Ang University), Yujin park (Chung-Ang University)


🕒 25m
- 2:15 PM

SND@LHC, SHiP
Speakers: Chun Sil Yoon (Gyeongsang National University), Seong Moon Yoo (SKKU)

🕒 15m
- 2:30 PM

Coherent
Speakers: Moohyun Ahn (Seoul National University), Se Wook Oh (Seoul National University)

🕒 15m

3:20 PM → 5:00 PM Session 3: Poster overview 2: SK, HK, JSNS^2, RENO, RENE, IceCUBE

- 3:20 PM

Super K, Hyper K
Speakers: Ji-Woong Seo (Sungkyunkwan Univ.), Seunghyun Jung (Seoul National University)

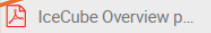
🕒 15m
- 3:35 PM

JSNS^2
Speakers: Byoungjun Park (Kyungpook National University), Chaeyun Lee (Soongsil University), Jisu Park (Chonnam National University), Jiwon Ryu (Kyungpook National University)

🕒 15m
- 3:50 PM

RENO, RENE
Speakers: Byeongsu Yang (Chonnam National University), Cheong Heo (Chonnam National University), Eungyu Yun (Chonnam National University), Junkyo Oh (Chonnam National University), Sang Yong KIM (Chonnam National University), Sang Yong Kim (CNU), Wonjun Lee (Seoul National University)

🕒 25m
- 4:15 PM

IceCUBE
Speakers: Chang Dong Rho (Sungkyunkwan University), ~~Chang Hyon Ha (Chung-Ang University)~~, Hani Kimku (Chung-Ang University), Minje Park, Taeyun Kim (skku)


🕒 15m
- 4:30 PM

Detector Development
Speakers: ByoungChan KIM (Chonnam National University), Chang Hyon Ha (Chung-Ang University), Ji Hong Shin, Ji Young CHOI (Chonnam National University), MINHYEONG JEON (Chonnam National University), Tae Yeong Kang (Chonnam National University)

🕒 30m

3	Detector	Chang Hyon Ha	CANDY
12	Detector	ByoungChan KIM	Feasibility studies on Computed Tomography Images and Hounsfield Unit value measurement using a new liquid scintillator
23	Detector	Ji Hong Shin	A Particle Trajectory Detector for Incident Cosmic-Ray Muons
24	Detector	Ji Young CHOI	Impurity Detection in Organometallic Complex-Based LAB Liquid Scintillators via Infrared Spectroscopy for Enhanced Neutrino Detection
30	Detector	MINHYEONG JEON	Studies on the Charcterization and development of organolead halide perovskite quantum dot liquid scintillators for next-generation detector
40	Detector	Tae Yeong Kang	Lithium-loaded acetone-based new liquid scintillator

9:00 AM → 9:30 AM

Registration

9:30 AM → 10:45 AM Session 4: Poster

10:45 AM → 12:00 PM Session 5: Poster

12:00 PM → 1:20 PM

Lunch



1:20 PM → 2:50 PM Session 6: Future Experiments

1:20 PM

Neutrino Oscillation from EIC to DUNE FD and to SNOLab

Speaker: Nishat Fiza

⌚ 20m

1:40 PM

동해 프로젝트

Speaker: Myeong-gi Jo (Seoul National University)

⌚ 20m

2:00 PM

LSC

Speaker: Eunil Won (Korea University)

⌚ 20m

2:20 PM

WIND

Speaker: Kim Siyeon (Chung-Ang University)

⌚ 20m

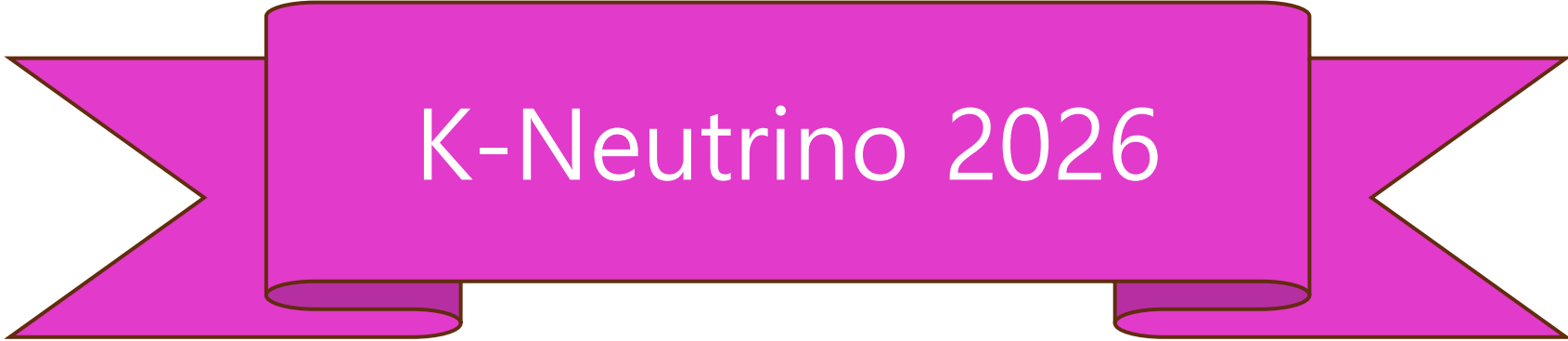
3:00 PM → 3:30 PM

Break

3:30 PM → 5:00 PM Session 7: Round table discussion

포스터 우수발표상
채점표 취합

포스터 우수발표상
상장 수여식



K-Neutrino 2026

- 전남대학교 SRC, CPNR
 - 일정 TBA