

Session Program

8-13 Sept 2025

XIIIth International Symposium on Nuclear Symmetry Energy (NuSym25)

NuSym Scientific Session

Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F)
Minatojima-minamimachi 6-7-1, Kobe, Japan

Monday 8 September

09:20

NuSym Scientific Session: Session 1

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe, Japan
Convener: Tadaaki Isobe

09:20–09:30

Opening

Speaker

Tadaaki Isobe

09:30–10:10

The overview of theoretical study for nuclear EOS

Speaker

Lie-Wen Chen

10:10–10:50

Overview of recent experimental study towards determination of nuclear EoS

Speaker

Dr Abdou Chbihi

10:50

11:20

NuSym Scientific Session: Session 2

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe, Japan
Convener: Dr Mizuki Kurata-Nishimura

11:20–12:00

Overview: EOS of Neutron-Rich Matter from Observations of Neutron Stars

Speaker

Bao-An Li

12:00–12:30

Role of the symmetry energy on hybrid stars

Speaker

Jérôme Margueron

12:30

14:00

NuSym Scientific Session: Session 3

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe, Japan
Convener: Kenichi Yoshida

14:00–14:30

Role of the isovector spin-orbit potential in mitigating the CREX-PREX dilemma

Speaker

Dr Marc Salinas

14:30–15:00

Bayesian and frequentist model comparison for nuclear symmetry energy

Speaker

zhen zhang

15:00-15:20

Equation of state of spin-polarized nuclear matter in the relativistic Hartree-Fock method

Speaker

Toi Tachibana

15:20

15:50

NuSym Scientific Session: Session 4

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe, Japan
Co-organizer: Zhigang Xiao

15:50-16:20

Cluster correlations in heavy-ion collision simulations

Speaker

Pawel Danielewicz

16:20-16:40

Alpha-removal amplitude including the finite-size effect of the alpha particle

Speaker

Nobuo HINOHARA

16:40-17:00

Polaron physics and nuclear symmetry energy in neutron star matter

Speaker

Hiroyuki Tajima

17:00

Tuesday 9 September

09:20

NuSym Scientific Session: Session 5

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe 650-0192
 Convenor: Juzo ZENIHIRO

09:20–09:50

Equation of State of Neutron Stars in the Era of Multi-Messenger Astronomy

Speaker

Ang Li

09:50–10:20

Investigating ultra-high-density equations of state through gravitational waves from binary neutron stars mergers

Speaker

Prof. Luca Baiotti

10:20–10:40

Symmetry energy constrained by gravitational waves

Speaker

Chang Ho Hyun

10:40

11:10

NuSym Scientific Session: Session 6

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe 650-0192
 Convenor: Akira Ono

11:10–11:40

Nuclear clustering in dilute nuclear matter within time-dependent density functional approaches

Speaker

Stefano Burrello

11:40–12:10

Probing Nucleon-Nucleon Short Range Correlations by Bremsstrahlung gamma-rays in Heavy Ion Collisions

Speaker

Zhigang Xiaozg

12:10–12:30

spin dynamics in intermediate-energy heavy-ion collisions

Speaker

Jun Xu

12:30

14:00

NuSym Scientific Session: Session 7

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe 650-0192
 Convenor: Jérôme Margueron

14:00–14:30

Ab initio calculation of Hyper-nuclear matter

Speaker

Hui Tong

14:30-15:00 **Nuclear matter calculation based on self-consistent Green's function**

Speaker

Prof. Carlo Barbieri

15:00-15:20

Constraints on the nuclear equation of state from astrophysical observations using relativistic mean-field models

Speaker

Tsuyoshi Miyatsu

15:20

15:50

NuSym Scientific Session: Session 8

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, ~~Konoha~~ Natsumi Ikeno

15:50-16:10

Systematic Study on Neutron-Skin Thickness for Ni Isotopes : An Approach to Constraining the Nuclear Equation of State

Speaker

Miki Fukutome

16:10-16:30

Extraction of the matter density distribution and radius of ^{132}Sn via proton elastic scattering at 200 MeV/nucleon

Speaker

Yuto Hijikata

16:30-16:50

Neutrino process calculation for SiC presolar grains and meteorites

Speaker

Takehito Hayakawa

16:50

Wednesday 10 September

09:20

NuSym Scientific Session: Session 9

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe, Japan
Convener: Prof. Hermann Wolter

09:20–09:50

Status Report of the ASY_EOS II Experiment And Isotopic Transparency in Central Xe+Sn Collisions at 100 MeV/nucleon

Speaker

Arnaud Le Fèvre

09:50–10:20

Investigation of the neutron-proton effective mass splitting via heavy ion collisions

Speaker

Yingxun Zhang

10:20–10:40

Pion potentials and its effect on pion production in heavy-ion collisions

Speaker

Natsumi Ikeno

10:40

11:10

NuSym Scientific Session: Session 10

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe, Japan
Convener: Pawel Danielewicz

11:10–11:40

(Anti-)Hypertritons in heavy ion collisions and Y-N interaction

Speaker

Che-Ming Ko

11:40–12:10

Experimental study of two-body hyperon-nucleon interactions toward understanding dense hyperonic nuclear matter

Speaker

Koji Miwa

12:10

Thursday 11 September

09:20

NuSym Scientific Session: Session 11

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe, Japan
 Convenor: Bao-An Li

09:20–09:50

Role of dense matter and neutrinos in core-collapse supernovae and hot neutron stars

Speaker

Prof. Kohsuke Sumiyoshi

09:50–10:20

An update to the neutron star mass and radius measurements from NICER data

Speaker

Sebastien Guillot

10:20–10:40

From days to minutes: machine learning transforms multi-messenger study on neutron star

Speaker

Peter Pang

10:40

11:10

NuSym Scientific Session: Session 12

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe, Japan
 Convenor: Jerzy Lukasik

11:10–11:40

A combined constraint on EOS, at high densities, by connecting neutron star observations and the data from heavy ion reactions

Speaker

Dr Jan Steinheimer-Froschauer

11:40–12:10

Constraining the EoS of dense neutron rich matter with pion production and flow

Speaker

William Lynch

12:10–12:30

Experimental studies on symmetry energy using CSHINE

Speaker

Yijie Wang

12:30

14:00

NuSym Scientific Session: Session 13

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe, Japan
Co-Chair: Arnaud Le Fèvre

14:00–14:20

The measurement and analysis of neutron-neutron correlation function in the heavy ion experiment**Speaker**

Dawei Si

14:20–14:50

Nuclear Equation of State constrained by nuclear giant resonances**Speaker**

Yifei Niu

14:50–15:10

Equation of State of Neutron Star Cores**Speaker**

Dr Bao-Jun Cai

15:10

15:40

NuSym Scientific Session: Session 14

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe, Japan
Co-Chair: Byungsik Hong

15:40–16:00

Nuclear pasta in neutron stars: role of the symmetry energy and fully microscopic treatment**Speaker**

Nikolai Shchepochin

16:00–16:20

Cooling of Neutron Star with a 2SC+$\langle dd \rangle$ Phase**Speaker**

Prof. Tsuneo NODA

16:20–16:50

Measurement of the incompressibility in nuclei to reveal the equation of state of nuclear matter**Speaker**

Dr Shinsuke Ota

16:50

Friday 12 September

09:20

NuSym Scientific Session: Session 15

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe, Japan
Co-Chair: Sherry Yennello

09:20–09:50

Lambda and Sigma single-particle potentials in nuclear matter from chiral EFT: Bridging heavy-ion collisions, hypernuclei, and neutron stars

Speaker

Asanosuke Jinno

09:50–10:20

Relevance of non-resonant contributions to pion production in heavy-ion reactions close to threshold

Speaker

Dan Cozma

10:20–10:50

Effects of nuclei shapes in a heavy-ion collision at intermediate energy

Speaker

Kyungil Kim

10:50

11:20

NuSym Scientific Session: Session 16

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe, Japan
Co-Chair: Dr Abdou Chbihi

11:20–11:50

FRIB's Experimental Roadmap to the Nuclear Equation of State

Speaker

Zbigniew Chajecki

11:50–12:20

Status of FAIR: Towards the determination of the nuclear EOS

Speaker

Dr Yvonne Leifels

12:20–12:40

KRAB detector characteristics and performance during the ASY-EOS II experiment at GSI

Speaker

Jerzy Lukasik

12:40

14:00

NuSym Scientific Session: Session 17

Session |

Location: Integrated Innovation Building (IIB), RIKEN Kobe Campus, Auditorium (8F), Minatojima-minamimachi 6-7-1, Kobe, Japan
Co-Chair: Betty Tsang

14:00–14:30

CEE experiment and its future physics program

Speaker
Yapeng Zhang

14:30-15:00

Perspectives of RIBF toward the Determination of the Nuclear Equation of State

Speaker
Tadaaki Isobe

15:00-15:10 **Closing**

Speaker
Tadaaki Isobe

15:10