

ICMaSS 2025 Nuclear Emulsion Workshop

Report of Contributions

Contribution ID: 1

Type: **not specified**

Development of Nano-Precision emulsion readout system for NA65/DsTau experiment

Saturday, 13 December 2025 09:00 (15 minutes)

Presenter: OKUMURA, Toranosuke (Chiba University)

Session Classification: [NE-001] Nuclear Emulsion Workshop 1

Contribution ID: 2

Type: **not specified**

Study of tau neutrino flux measurement with a specific cascade decay of Ds to tau and tau to X by CERN-NA65, DsTau experiment

Saturday, 13 December 2025 09:15 (15 minutes)

Presenter: SATO, Osamu (Nagoya University (JP))

Session Classification: [NE-001] Nuclear Emulsion Workshop 1

Contribution ID: 3

Type: **not specified**

Analysis of Emulsion Detectors in the NINJA Experiment 2023 Physics Run

Saturday, 13 December 2025 09:30 (15 minutes)

Presenter: KOBAYASHI, Haruki (Nagoya University)

Session Classification: [NE-001] Nuclear Emulsion Workshop 1

Contribution ID: 4

Type: **not specified**

Current statsu of CERN SHiP and SND@LHC experiments

Saturday, 13 December 2025 09:45 (15 minutes)

Presenter: KOMATSU, Masahiro (Nagoya University (JP))

Session Classification: [NE-001] Nuclear Emulsion Workshop 1

Contribution ID: 5

Type: **not specified**

New Binding Energy Determinations of $3\Lambda\text{H}$, $4\Lambda\text{H}$, and Double-Strangeness Hypernuclei via Nuclear Emulsion and Deep Learning

Saturday, 13 December 2025 10:15 (15 minutes)

Presenter: KASAGI, Ayumi (Rikkyo University)

Session Classification: [NE-002] Nuclear Emulsion Workshop 2

Contribution ID: 6

Type: **not specified**

Production of nuclear emulsion mixed with Lithium and Boron to confirm the ground state of the Xi hypernucleus

Saturday, 13 December 2025 10:30 (15 minutes)

Presenter: NAKAZAWA, Kazuma (Gifu University)

Session Classification: [NE-002] Nuclear Emulsion Workshop 2

Contribution ID: 7

Type: **not specified**

GRAINE Project: Status of Analysis for the 2023 Balloon Experiment and Future Prospects

Saturday, 13 December 2025 10:45 (15 minutes)

Presenter: USUDA, Ikuya (Nagoya University)

Session Classification: [NE-002] Nuclear Emulsion Workshop 2

Contribution ID: **8**

Type: **not specified**

Local Variations of Cosmic Ray East-West Effect at 35 km Altitude in GRAINE 2023 Balloon Experiment

Saturday, 13 December 2025 11:00 (15 minutes)

Presenter: NAGAHARA, Shogo (Nagoya University)

Session Classification: [NE-002] Nuclear Emulsion Workshop 2

Contribution ID: 9

Type: **not specified**

GRAINE Project: Balloon-borne Gamma-ray Telescope with Nuclear Emulsion

Saturday, 13 December 2025 11:30 (30 minutes)

Presenters: AOKI, Shigeki (Department of Physics-Kobe University); AOKI, Shigeki (Kobe University (JP))

Session Classification: [NE-003] Nuclear Emulsion Workshop 3

Contribution ID: **10**

Type: **not specified**

Earth spectroscopy with neutrino detectors, enabled by rock radiography with emulsion films

Saturday, 13 December 2025 14:00 (30 minutes)

Presenter: ENOMOTO, Sanshiro (University of Washington)

Session Classification: [NE-004] Nuclear Emulsion Workshop 4

Contribution ID: 11

Type: **not specified**

Silver Halide Photographic Materials for the Radiation-Track Detector

Saturday, 13 December 2025 14:30 (30 minutes)

Presenter: KUGE, Kenichi

Session Classification: [NE-004] Nuclear Emulsion Workshop 4

Contribution ID: **12**

Type: **not specified**

Measurement of the sensitivity of crystals of super-fine-grained nuclear emulsion of ions with non-relativistic velocity.

Saturday, 13 December 2025 15:15 (15 minutes)

Presenter: CHIN, Natsuki (Nagoya University)

Session Classification: [NE-005] Nuclear Emulsion Workshop 5

Contribution ID: 13

Type: **not specified**

Application of Triethanolamine Sensitization to Improve Detection Efficiency in Fine- Grained Nuclear Emulsions

Saturday, 13 December 2025 15:30 (15 minutes)

Presenters: ASADA, Takashi (University Federico II and INFN, Naples (IT)); ASADA, Takashi

Session Classification: [NE-005] Nuclear Emulsion Workshop 5

Contribution ID: **14**

Type: **not specified**

Observation of quantum states of ultracold neutrons in the gravitational field using ultracold neutron emulsion

Saturday, 13 December 2025 15:45 (15 minutes)

Presenter: NAGANAWA, Naotaka (Nagoya University)

Session Classification: [NE-005] Nuclear Emulsion Workshop 5

Contribution ID: 15

Type: **not specified**

Pioneering advanced research through α and β ray measurement using nuclear emulsions

Saturday, 13 December 2025 16:00 (15 minutes)

Presenter: FUKUDA, Tsutomu (Nagoya Univ.)

Session Classification: [NE-005] Nuclear Emulsion Workshop 5

Contribution ID: **16**

Type: **not specified**

Visualization of Silver Grain Structures in Nuclear Emulsions Using X-ray Ptychography toward Understanding Photographic Development Mechanisms

Saturday, 13 December 2025 16:15 (15 minutes)

Presenter: YOSHIDA, Jyunya (Tohoku University)

Session Classification: [NE-005] Nuclear Emulsion Workshop 5

Contribution ID: 17

Type: **not specified**

Neutrino measurements and short-lived particle searches with FASER

Saturday, 13 December 2025 16:30 (4 minutes)

Presenter: MORIYAMA, Keiko (Kyushu University (JP))

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: **18**

Type: **not specified**

Timestamp test of emulsion gamma-ray telescope at Mt. Norikura Cosmic-ray Observatory

Saturday, 13 December 2025 16:34 (4 minutes)

Presenter: MURAI, Naho (Hirosaki University)

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: **19**

Type: **not specified**

Identification of the tracks of heavy nuclei with machine learning method in the GRAINE 2023 balloon-borne experiment

Saturday, 13 December 2025 16:38 (4 minutes)

Presenter: SUGI, Yuki (Okayama University of Science)

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: **20**

Type: **not specified**

Development of a Microscope System for the High-Precision Measurement of Cosmic Gamma Rays with the Nuclear Emulsion Telescope

Saturday, 13 December 2025 16:42 (4 minutes)

Presenter: YASUDA, Ibuki (Nagoya University)

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: 21

Type: **not specified**

Idea of “Emulsion School” for Young Researchers hosted by Nagoya University

Saturday, 13 December 2025 16:46 (4 minutes)

Presenters: ROKUJO, Hiroki; ROKUJO, Hiroki (Nagoya University (JP))

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: 22

Type: **not specified**

Developement of the dosimetry technique for FLASH radiotherapy with nuclear emulsion

Saturday, 13 December 2025 16:50 (4 minutes)

Presenter: SUZUI, Leona (Nagoya University)

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: 23

Type: **not specified**

Evaluation by simulation of the search experiment for neutrinoless double beta decay using nuclear emulsion plates and development of thick nuclear emulsion plates

Saturday, 13 December 2025 16:54 (4 minutes)

Presenter: TAKANO, Marin (Yokohama National Univ)

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: 24

Type: **not specified**

Analysis of Emulsion Detector Data from Runs 4 and 5 of the SND Experiment

Saturday, 13 December 2025 16:58 (4 minutes)

Presenter: OBAYASHI, Kenji (Toho University)

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: 25

Type: **not specified**

Development of a double-concentration manufacturing method and its performance evaluation for large-size silver halide crystal nuclear emulsions for the NINJA experiment

Saturday, 13 December 2025 17:02 (4 minutes)

Presenter: HAYASAKA, Yuki (Nagoya University)

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: **26**

Type: **not specified**

Development of Automatic Track Readout Technology for Nuclear Emulsions

Saturday, 13 December 2025 17:06 (4 minutes)

Presenter: KAWAI, Hozuki (Nagoya University)

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: 27

Type: **not specified**

Development of high-sensitivity nuclear emulsions focusing on silver bromide crystal size and chemical sensitization

Saturday, 13 December 2025 17:10 (4 minutes)

Presenter: HORII, Hiroki (Nagoya University)

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: **28**

Type: **not specified**

Development of reconstruction of beta-ray tracks in nuclear emulsion

Saturday, 13 December 2025 17:14 (4 minutes)

Presenter: TAKESHITA, Sohichi (Nagoya University)

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: 29

Type: **not specified**

Status of Charm Particle Analysis in Proton-Nucleus Interactions at the NA65/DsTau Experiment

Saturday, 13 December 2025 17:18 (4 minutes)

Presenter: MATSUYAMA, Kazuho (Chiba University (JP))

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: 30

Type: **not specified**

Development of a High-Speed Detection Method for Alpha Particle Tracks in Nuclear Emulsion Using Machine Learning

Saturday, 13 December 2025 17:22 (4 minutes)

Presenter: NISHIKIORI, Tsukasa (Nagoya University)

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: 31

Type: **not specified**

Subsurface Resource Exploration Using Cosmic Ray Imaging

Saturday, 13 December 2025 17:26 (4 minutes)

Presenters: MORISHIMA, Kunihiro (Nagoya University (JP)); MORISHIMA, Kunihiro

Session Classification: [NE-P-001] Nuclear Emulsion Workshop P1

Contribution ID: 32

Type: **not specified**

A Fast Simulation Tool for Multi-directional Muography Feasibility Studies

Sunday, 14 December 2025 09:00 (15 minutes)

Presenter: MIYAMOTO, Seigo (The University of Tokyo,)

Session Classification: [NE-006] Nuclear Emulsion Workshop 6

Contribution ID: 33

Type: **not specified**

Cosmic Ray Imaging of the Copán Ruins of the Ancient Maya Civilization Using Nuclear Emulsion

Sunday, 14 December 2025 09:15 (15 minutes)

Presenter: YAZAKI, Masaru (Nagoya University)

Session Classification: [NE-006] Nuclear Emulsion Workshop 6

Contribution ID: 34

Type: **not specified**

Development of a Borehole Detector for Underground Structure Exploration Using Cosmicray Imaging

Sunday, 14 December 2025 09:30 (15 minutes)

Presenter: SHONO, Tenzin (Nagoya University)

Session Classification: [NE-006] Nuclear Emulsion Workshop 6

Contribution ID: 35

Type: **not specified**

Development of a Latent Image Fading-Resistant Nuclear Emulsion for Long-Term Cosmic Ray Imaging

Sunday, 14 December 2025 09:45 (15 minutes)

Presenter: YOSHIHARA, Atsuki (Nagoya University)

Session Classification: [NE-006] Nuclear Emulsion Workshop 6

Contribution ID: 36

Type: **not specified**

Development of Nuclear Emulsion Track Recognition Using Machine Learning

Sunday, 14 December 2025 10:15 (15 minutes)

Presenter: NAKANO, Kento (Nagoya University)

Session Classification: [NE-007] Nuclear Emulsion Workshop 7

Contribution ID: 37

Type: **not specified**

Development of Nuclear Emulsion Detectors for Levee Safety Assessment

Sunday, 14 December 2025 10:30 (15 minutes)

Presenters: KITAGAWA, Nobuko; KITAGAWA, Nobuko (Nagoya University (JP))

Session Classification: [NE-007] Nuclear Emulsion Workshop 7

Contribution ID: 38

Type: **not specified**

Development of Large-Grained Nuclear Emulsions for Cosmic Ray Imaging

Sunday, 14 December 2025 10:45 (15 minutes)

Presenter: KUBOTA, Seiga (Nagoya University)

Session Classification: [NE-007] Nuclear Emulsion Workshop 7

Contribution ID: 39

Type: **not specified**

Improvement of emulsion coating method and protective layer coating method in nuclear emulsion coating system

Sunday, 14 December 2025 11:15 (15 minutes)

Presenter: YAMAMOTO, Saya (Nagoya University)

Session Classification: [NE-008] Nuclear Emulsion Workshop 8

Contribution ID: **40**

Type: **not specified**

The latest nuclear emulsion readout system

Sunday, 14 December 2025 11:30 (15 minutes)

Presenter: NAKANO, Toshiyuki (Aichi University of Education)

Session Classification: [NE-008] Nuclear Emulsion Workshop 8

Contribution ID: 41

Type: **not specified**

Status of Development of HTS-2, a High-Speed Scanning System for Nuclear Emulsion

Sunday, 14 December 2025 11:45 (15 minutes)

Presenter: KAWAHARA, Tsuyoshi (Nagoya University)

Session Classification: [NE-008] Nuclear Emulsion Workshop 8