

20th Russbach School on Nuclear Astrophysics



Report of Contributions

Contribution ID: 1

Type: **not specified**

Type Ia Supernovae: an observer's perspective

Tuesday 18 March 2025 15:35 (45 minutes)

Presenter: PATAT, Ferdinando

Track Classification: Observation

Contribution ID: 2

Type: **not specified**

Storage rings for nuclear astrophysics

Tuesday 18 March 2025 16:30 (45 minutes)

Presenter: BRUNO, Carlo

Track Classification: Experiment

Contribution ID: 3

Type: **not specified**

Recoil Separators for Nuclear Astrophysics

Tuesday 18 March 2025 09:00 (45 minutes)

Presenter: COUDER, Manoel

Track Classification: Experiment

Contribution ID: 4

Type: **not specified**

Probe element synthesis in star with JUNA in deep underground

Tuesday 18 March 2025 17:55 (45 minutes)

Presenter: LIU, Weiping

Track Classification: Experiment

Contribution ID: 5

Type: **not specified**

The total cross section measurement for the reaction $^{37}\text{Cl}(\alpha, n)^{40}\text{K}$ using HeBGB detector

Monday 17 March 2025 18:50 (15 minutes)

Presenter: ARORA, Honey

Track Classification: Experiment

Contribution ID: 6

Type: **not specified**

Statistical properties of ^{85}Rb nucleus relevant to the astrophysical p-process

Monday 17 March 2025 19:05 (15 minutes)

Presenter: BOSMPOTINIS, Konstantinos

Track Classification: Experiment

Contribution ID: 7

Type: **not specified**

High-precision abundance analysis of a unique CEMP-no star in Sculptor

Monday 17 March 2025 19:20 (15 minutes)

Presenter: CUADRA, Francisco

Track Classification: Observation

Contribution ID: 8

Type: **not specified**

The $^{18}\text{F}(\text{p},\alpha)^{15}\text{O}$ reaction: a textbook case in nuclear astrophysics

Wednesday 19 March 2025 09:00 (45 minutes)

Presenter: DEOLIVEIRA, François

Track Classification: Experiment

Contribution ID: 9

Type: **not specified**

Resonant elastic scattering experiments with active and non-active targets

Tuesday 18 March 2025 18:50 (15 minutes)

Presenter: DIENIS, Laurie

Track Classification: Experiment

Contribution ID: 10

Type: **not specified**

Impact of Nuclear Level Densities and Gamma-ray Strength Functions on Astrophysical Reaction Rates for Neutron Capture Processes

Tuesday 18 March 2025 19:05 (15 minutes)

Presenter: GHOSH, Tanmoy

Track Classification: theory nuclear

Contribution ID: **11**

Type: **not specified**

Constraining the $^{205}\text{Pb}(\text{n},\text{g})$ cross section with surrogate reactions in a storage ring

Thursday 20 March 2025 18:50 (15 minutes)

Presenter: LECKENBY, Guy

Track Classification: Experiment

Contribution ID: 12

Type: **not specified**

Ultrasonic Detection of Pu and Am Isotopes by AMS with Applications in Astrophysics

Wednesday 19 March 2025 18:50 (15 minutes)

Presenter: MOROIANU, Elena Victorita

Track Classification: cosmochemistry

Contribution ID: 13

Type: **not specified**

Study of resonances in Gamow window for $^{12}\text{C}+^{12}\text{C}$ fusion reaction via thick-target inverse kinematics method

Wednesday 19 March 2025 19:05 (15 minutes)

Presenter: NAN, Wei Ke

Contribution ID: 14

Type: **not specified**

Elastic α -scattering on $^{116,118}\text{Sn}$ at energies around the Coulomb barrier

Wednesday 19 March 2025 19:20 (15 minutes)

Presenter: NUNES, Raquel

Track Classification: Experiment

Contribution ID: 15

Type: **not specified**

Constraining the neutron capture reaction on Zr isotopes for astrophysical processes

Thursday 20 March 2025 19:05 (15 minutes)

Presenter: SEBASTIAN, Amal

Track Classification: Experiment

Contribution ID: **16**

Type: **not specified**

Nucleosynthesis Science with COSI

Tuesday 18 March 2025 19:20 (15 minutes)

Presenter: VALLUVAN, Aravind

Track Classification: Observation

Contribution ID: 17

Type: **not specified**

The impact of the first stars in two ultra-faint dwarf galaxies: Grus II and Tucana IV

Thursday 20 March 2025 19:20 (15 minutes)

Presenter: VERDIANI, Valentina

Track Classification: Observation

Contribution ID: **18**

Type: **not specified**

R-matrix calculations for nuclear astrophysics

Wednesday 19 March 2025 09:55 (45 minutes)

Presenter: DEBOER, James

Track Classification: theory nuclear

Contribution ID: **19**

Type: **not specified**

Light elements, but massive consequences - How Big Bang Nucleosynthesis shaped our universe

Wednesday 19 March 2025 11:20 (45 minutes)

Presenter: TURKAT, Steffen

Track Classification: cosmochemistry

Contribution ID: 20

Type: **not specified**

Nuclear reactions for Astrophysics and the opportunity of indirect methods

Wednesday 19 March 2025 16:30 (45 minutes)

Presenter: LA COGNATA, Marco

Track Classification: Experiment

Contribution ID: 21

Type: **not specified**

Studying the galactic chemical evolution of isotopes by analyzing presolar grains

Monday 17 March 2025 16:30 (45 minutes)

Presenter: TRAPPITSCH, Reto

Track Classification: cosmochemistry

Contribution ID: 22

Type: **not specified**

How the Universe got its first chemical elements

Wednesday 19 March 2025 17:25 (45 minutes)

Presenter: REY, Martin

Track Classification: Observation

Contribution ID: 23

Type: **not specified**

Supernova nucleosynthesis

Thursday 20 March 2025 16:30 (45 minutes)

Presenter: SIEVERDING, Andre

Track Classification: stellar evolution

Contribution ID: 24

Type: **not specified**

The evolution and nucleosynthesis of low and intermediate-mass stars: highlights and relevance

Monday 17 March 2025 17:55 (45 minutes)

Presenter: GIL PONS, Pilar

Track Classification: stellar evolution

Contribution ID: 25

Type: **not specified**

Probing the Stars Beneath Our Feet: Underground Proton Capture Reactions at Underground Facilities

Thursday 20 March 2025 09:55 (45 minutes)

Presenter: SKOWRONSKI, Jakub

Track Classification: Experiment

Contribution ID: 26

Type: **not specified**

Nuclear fission at storage rings

Thursday 20 March 2025 11:20 (45 minutes)

Presenter: JURADO, Beatriz

Track Classification: Experiment

Contribution ID: 27

Type: **not specified**

Observations of heavy elements in metal-poor stars

Friday 21 March 2025 16:30 (45 minutes)

Presenter: LOMBARDO, Linda

Track Classification: Observation

Contribution ID: 28

Type: **not specified**

Indirect techniques in nuclear astrophysics

Thursday 20 March 2025 17:55 (45 minutes)

Presenter: MUECHER, Dennis

Track Classification: Experiment

Contribution ID: 29

Type: **not specified**

Presolar Stardust in Meteorites: Recent Advances

Friday 21 March 2025 09:00 (45 minutes)

Presenter: NITTLER, Larry

Track Classification: cosmochemistry

Contribution ID: **30**

Type: **not specified**

Introduction to Stellar Spectroscopy

Monday 17 March 2025 11:20 (45 minutes)

Presenter: KUČINSKAS, Arūnas

Track Classification: Observation

Contribution ID: 31

Type: **not specified**

Introduction to Stellar Evolution and Modeling (massive stars)

Tuesday 18 March 2025 09:55 (45 minutes)

Presenter: LIMONGI, Marco

Track Classification: stellar evolution

Contribution ID: 32

Type: **not specified**

Search for gravitational waves in connection to nuclear astrophysics

Friday 21 March 2025 09:55 (45 minutes)

Presenter: MARION, Frédérique

Track Classification: Observation

Contribution ID: 33

Type: **not specified**

Gamma ray spectroscopy of cosmic nucleosynthesis

Friday 21 March 2025 11:20 (45 minutes)

Presenter: DIEHL, Roland

Track Classification: Observation

Contribution ID: 34

Type: **not specified**

Microscopic nuclear theory for the equation of state

Thursday 20 March 2025 09:00 (45 minutes)

Presenter: TEWS, Ingo

Track Classification: stellar evolution

Contribution ID: 35

Type: **not specified**

Chemical evolution of neutron capture elements: a homogeneous approach

Friday 21 March 2025 17:55 (45 minutes)

Presenter: MOLERO, Marta

Track Classification: stellar evolution

Contribution ID: **36**

Type: **not specified**

General Introduction on Nuclear Astrophysics

Monday 17 March 2025 09:55 (45 minutes)

Presenter: DEOLIVEIRA, François

Contribution ID: 37

Type: **not specified**

Welcome and Introduction

Monday 17 March 2025 09:00 (55 minutes)

Contribution ID: **38**

Type: **not specified**

Closing Remarks

Friday 21 March 2025 18:50 (45 minutes)

Contribution ID: 39

Type: **not specified**

Public Lecture in German language: Kosmische Fabriken für die Elemente unseres Lebens

Tuesday 18 March 2025 11:30 (1 hour)

Presenter: DIEHL, Roland (Max-Planck-Institut für extraterrestrische Physik und Technische Universität München)

Contribution ID: 40

Type: **not specified**

Status report on the development of a matrix detector for CRYRING@ESR

Sunday 16 March 2025 18:59 (1 minute)

Presenter: MOROIANU, Elena

Contribution ID: 41

Type: **not specified**

Experimental study of the $^{18}\text{Ne}(\alpha, p)^{21}\text{Na}$ reaction via direct and indirect mean

Sunday 16 March 2025 18:58 (1 minute)

Presenter: GIHA, Nathan

Contribution ID: 42

Type: **not specified**

Synthesis of Super-Heavy Elements beyond $Z = 118$

Sunday 16 March 2025 18:57 (1 minute)

Presenter: MÜLLER, Linda

Contribution ID: 43

Type: **not specified**

Development and Testing of the SuNFLOWER Detector Array

Sunday 16 March 2025 18:56 (1 minute)

Presenter: COIL, Sydney

Contribution ID: 44

Type: **not specified**

Studying the astrophysically crucial the $^{12}\text{C}(\alpha, \text{g})^{16}\text{O}$ reaction at high temperatures

Sunday 16 March 2025 18:55 (1 minute)

Presenter: THINGHOLM, Jeppe

Contribution ID: 45

Type: **not specified**

Angular Distributions in Carbon Fusion Reactions with STELLA

Sunday 16 March 2025 18:54 (1 minute)

Presenter: HARMANT, Guillaume

Contribution ID: 46

Type: **not specified**

Can Neutron Star Mergers Alone Reproduce r-Process Abundances in Ultra-Faint Dwarfs?

Sunday 16 March 2025 18:53 (1 minute)

Presenter: GYURE, Christine

Contribution ID: 47

Type: **not specified**

Radiative Capture Reaction Measurements with the Solenoid Spectrometer for Nuclear Astrophysics and Decays

Sunday 16 March 2025 18:52 (1 minute)

Presenter: DEMBSKI, Cade