

GIANTS 2025

Report of Contributions

Contribution ID: **1**

Type: **not specified**

Welcome

Thursday, 3 July 2025 09:30 (30 minutes)

Contribution ID: 4

Type: **not specified**

INFN Midterm plan: scientific heritage

Thursday, 3 July 2025 10:00 (30 minutes)

Presenter: LA COGNATA, Marco (Istituto Nazionale di Fisica Nucleare)

Session Classification: Overview

Contribution ID: 5

Type: **not specified**

Evoluzione chimica della Galassia e le survey delle abbondanze

*Thursday, 3 July 2025 11:00 (30 minutes)***Presenter:** CESCUTTI, Gabriele (Istituto Nazionale di Fisica Nucleare)**Session Classification:** BBN, evoluzione chimica della Galassia

Contribution ID: 6

Type: **not specified**

Big Bang Nucleosynthesis refined with THM

*Thursday, 3 July 2025 11:30 (20 minutes)***Presenter:** SPARTA', Roberta (Istituto Nazionale di Fisica Nucleare)**Session Classification:** BBN, evoluzione chimica della Galassia

Contribution ID: 7

Type: **not specified**

Evoluzione Stellare

Thursday, 3 July 2025 11:50 (30 minutes)

Presenter: LIMONGI, MARCO (INAF-OAR)

Session Classification: Stellar nucleosynthesis

Contribution ID: 8

Type: **not specified**

The E1 and E2 capture amplitudes in $^{12}\text{C}(\alpha,\gamma)^{16}\text{O}$ around the 2.42 MeV resonance

*Thursday, 3 July 2025 12:20 (20 minutes)***Presenter:** CHAKRABORTY, Kajol (Università della Campania “L. Vanvitelli”)**Session Classification:** Stellar nucleosynthesis

Contribution ID: 9

Type: **not specified**

Carbon burning studies with the THM

*Thursday, 3 July 2025 12:40 (20 minutes)***Presenter:** OLIVA, Alessandro Alberto (INFN-LNS)**Session Classification:** Stellar nucleosynthesis

Contribution ID: **10**Type: **not specified**

Direct measurement of $^{12}\text{C}+^{12}\text{C}$ towards astrophysical energy at ERNA

*Thursday, 3 July 2025 13:00 (20 minutes)***Presenter:** STRANIERO, Oscar (INAF)**Session Classification:** Stellar nucleosynthesis

Contribution ID: 11

Type: **not specified**

14N(p,γ)15O nuclear cross-section at LUNA

*Thursday, 3 July 2025 13:20 (20 minutes)***Presenter:** MASHA, Eliana**Session Classification:** Stellar nucleosynthesis

Contribution ID: 12

Type: **not specified**

Nucleosintesi Esplosiva

*Thursday, 3 July 2025 15:00 (30 minutes)***Presenter:** PIGNATARI, Marco (HUN-REN Konkoly)**Session Classification:** Explosive nucleosynthesis

Contribution ID: 13

Type: **not specified**

Processi s e i

*Thursday, 3 July 2025 15:30 (30 minutes)***Presenter:** CRISTALLO, Sergio (Istituto Nazionale di Fisica Nucleare)**Session Classification:** r, i, s processes

Contribution ID: 14

Type: **not specified**

New results on low energy $^{22}\text{Ne}(\alpha, n)^{25}\text{Mg}$ with Shades at the LNGS Bellotti facility

*Thursday, 3 July 2025 16:00 (20 minutes)***Presenter:** MERCOGLIANO, Daniela (Istituto Nazionale di Fisica Nucleare)**Session Classification:** r, i, s processes

Contribution ID: 15

Type: **not specified**

Neutron spectroscopy of 26 Mg states: constraining the $^{22}\text{Ne}(\alpha, n)^{25}\text{Mg}$ reaction rate

*Thursday, 3 July 2025 16:20 (20 minutes)***Presenter:** PIERETTI, Nicholas (Istituto Nazionale di Fisica Nucleare)**Session Classification:** r, i, s processes

Contribution ID: 16

Type: **not specified**

Recent results on neutron capture reactions at n_TOF

*Thursday, 3 July 2025 17:10 (20 minutes)***Presenter:** MUCCIOLA, Riccardo (Istituto Nazionale di Fisica Nucleare)**Session Classification:** r, i, s processes

Contribution ID: 17

Type: **not specified**

Electron Capture and Bound-State β Decays in Ions and Plasma: new calculations for s-process nucleosynthesis

*Thursday, 3 July 2025 17:30 (20 minutes)***Presenter:** MISHRA, Bharat (Istituto Nazionale di Fisica Nucleare)**Session Classification:** r, i, s processes

Contribution ID: 18

Type: **not specified**

Atomic calculations and opacities for kilonova light-curve studies: the selenium case

Thursday, 3 July 2025 17:50 (20 minutes)

Presenter: BEZMALINOVICH, Matteo (Ph.D. student INAF-OAAb e Università Sapienza Roma)

Session Classification: r, i, s processes

Contribution ID: 19

Type: **not specified**

Detector characterization for a new $^{12}\text{C} + ^{12}\text{C}$ reaction study at Bellotti Ion Beam Facility

Friday, 4 July 2025 09:30 (20 minutes)

Presenter: GESUÈ, Riccardo Maria (Istituto Nazionale di Fisica Nucleare)

Session Classification: Facilities and New Technologies

Contribution ID: 20

Type: **not specified**

Astrophysics reaction in laser induced plasma

*Friday, 4 July 2025 09:50 (20 minutes)***Presenter:** LATTUADA, Dario (Istituto Nazionale di Fisica Nucleare)**Session Classification:** Facilities and New Technologies

Contribution ID: 21

Type: **not specified**

Half-life of ^7Be in different environments and different charge states

Friday, 4 July 2025 10:10 (20 minutes)

Presenters: GIALANELLA, Lucio (Istituto Nazionale di Fisica Nucleare); BUOMPANE, Raffaele (Istituto Nazionale di Fisica Nucleare)

Session Classification: Facilities and New Technologies

Contribution ID: 22

Type: **not specified**

First indirect measurement of the cross sections $^{26}\text{Al}(\text{n},\text{p})$ and $^{26}\text{Al}(\text{n},\alpha)$ in the multimessenger astronomy framework

*Friday, 4 July 2025 10:30 (10 minutes)***Presenter:** ANDREIS, Francesco**Session Classification:** Giovani Ricercatori flash talk

Contribution ID: 23

Type: **not specified**

Direct Measurement of the total Cross section of $^{12}\text{C}(\alpha,\gamma)^{16}\text{O}$ with the recoil mass separator ERNA

*Friday, 4 July 2025 10:40 (10 minutes)***Presenter:** SAMAR**Session Classification:** Giovani Ricercatori flash talk

Contribution ID: 24

Type: **not specified**

Experimental design of opacity measurements in the PANDORA plasma trap relevant for Kilonovae signals

*Friday, 4 July 2025 10:50 (10 minutes)***Presenter:** PIDATELLA, Angelo (Istituto Nazionale di Fisica Nucleare)**Session Classification:** Giovani Ricercatori flash talk

Contribution ID: 25

Type: **not specified**

Probing key $^{19}\text{F}(p,\gamma)^{20}\text{Ne}$ resonances with innovative targets at LUNA

*Friday, 4 July 2025 11:00 (10 minutes)***Presenter:** BIASISSI, Riccardo (Istituto Nazionale di Fisica Nucleare)**Session Classification:** Giovani Ricercatori flash talk

Contribution ID: 26

Type: **not specified**

Neutron activation measurements in the n_TOF irradiation station

*Friday, 4 July 2025 11:30 (20 minutes)***Presenter:** SPELTA, Michele (Istituto Nazionale di Fisica Nucleare)**Session Classification:** Facilities and New Technologies

Contribution ID: 27

Type: **not specified**

The construction of the PANDORA facility: updates and perspectives

*Friday, 4 July 2025 11:50 (20 minutes)***Presenter:** NASELLI, Eugenia (Istituto Nazionale di Fisica Nucleare)**Session Classification:** Facilities and New Technologies

Contribution ID: 28

Type: **not specified**

Carbon-Oxygen Shell Interactions in Massive Stars: Nucleosynthesis and Implications

*Friday, 4 July 2025 12:10 (20 minutes)***Presenter:** ROBERTI, Lorenzo (Istituto Nazionale di Fisica Nucleare)**Session Classification:** Facilities and New Technologies