

Neutron-capture reactions for astrophysical processes

Report of Contributions

Contribution ID: 1

Type: **not specified**

Overview Talk and NSTAR Project: Direct Neutron Capture Reactions in A Storage Ring

Monday 3 November 2025 09:00 (45 minutes)

Presenter: DILLMANN, Iris (TRIUMF)

Contribution ID: 2

Type: **not specified**

Surrogate reactions at the experimental storage ring

Monday 3 November 2025 09:45 (35 minutes)

Presenter: JURADO, Beatriz

Contribution ID: **3**

Type: **not specified**

Discussion

Monday 3 November 2025 10:20 (15 minutes)

Contribution ID: 4

Type: **not specified**

The s, i and n processes in massive and AGB stars

Monday 3 November 2025 11:00 (35 minutes)

Presenter: CHOPLIN, Arthur (Université Libre de Bruxelles)

Contribution ID: 5

Type: **not specified**

The time-dependence of the i process engine and the Global Oscillation of Shell-Hydrogen ingestion (GOSH) in 3D simulations

Monday 3 November 2025 11:35 (35 minutes)

Presenter: HERWIG, Falk (University of Victoria)

Contribution ID: 6

Type: **not specified**

Discussion

Monday 3 November 2025 12:10 (15 minutes)

Contribution ID: 7

Type: **not specified**

Nuclear physics uncertainties in the weak and strong r-process

Monday 3 November 2025 14:00 (35 minutes)

Presenter: ARCONES, Almudena (TU Darmstadt and GSI)

Contribution ID: 8

Type: **not specified**

Hydrodynamical models of neutron-star mergers including all phases of matter ejection

Monday 3 November 2025 14:35 (35 minutes)

Presenter: JUST, Oliver (RIKEN Japan)

Contribution ID: 9

Type: **not specified**

Discussion

Monday 3 November 2025 15:10 (15 minutes)

Contribution ID: **10**

Type: **not specified**

Searching for astrophysical signatures of different neutron capture processes

Monday 3 November 2025 15:50 (35 minutes)

Presenter: VASSH, Nicole

Contribution ID: **11**

Type: **not specified**

Neutron-capture constraints for the i-process

Monday 3 November 2025 16:25 (20 minutes)

Presenter: SPYROU, Artemis (Michigan State University)

Contribution ID: **12**

Type: **not specified**

Discussion

Monday 3 November 2025 16:45 (15 minutes)

Contribution ID: 13

Type: **not specified**

^{60}Fe and ^{182}Hf production via double neutron capture on ^{58}Fe and ^{180}Hf

Tuesday 4 November 2025 09:00 (35 minutes)

Presenter: WALLNER, Anton (The Australian National University)

Contribution ID: 14

Type: **not specified**

The measurement on the reaction rate of $^{59}\text{Fe}(\text{n},\text{g})$ in RIBLL

Tuesday 4 November 2025 09:35 (35 minutes)

Presenter: JIN, SHILUN

Contribution ID: **15**

Type: **not specified**

Discussion

Tuesday 4 November 2025 10:10 (15 minutes)

Contribution ID: **16**

Type: **not specified**

Predicting radiative neutron captures

Tuesday 4 November 2025 10:50 (35 minutes)

Presenter: GORIELY, Stephane (Université Libre de Bruxelles)

Contribution ID: 17

Type: **not specified**

Experimental neutron-captures for r-process

Tuesday 4 November 2025 11:25 (35 minutes)

Presenter: MUECHER, Dennis (University of Cologne)

Contribution ID: **18**

Type: **not specified**

Discussion

Tuesday 4 November 2025 12:00 (15 minutes)

Contribution ID: **19**

Type: **not specified**

Impact of level densities in capture cross sections

Tuesday 4 November 2025 13:45 (35 minutes)

Presenter: POTEL AGUILAR, Gregory (Lawrence Livermore National Laboratory)

Contribution ID: 20

Type: **not specified**

Microscopic nuclear level densities and Photon Strength functions for neutron capture

Tuesday 4 November 2025 14:20 (35 minutes)

Presenter: HILAIRE, stephane (CEA, DAM, DIF)

Contribution ID: **21**

Type: **not specified**

Discussion

Tuesday 4 November 2025 14:55 (15 minutes)

Contribution ID: 22

Type: **not specified**

Key nuclear reactions for nucleosynthesis and Galactic chemical evolution

Tuesday 4 November 2025 15:35 (35 minutes)

Presenter: Prof. KAJINO, Toshitaka (Beihang University/NAOJ/University of Tokyo)

Contribution ID: 23

Type: **not specified**

Neutron transfer reactions to the continuum as an indirect approach to neutron capture

Tuesday 4 November 2025 16:10 (35 minutes)

Presenter: NUNES, Filomena (Michigan State University)

Contribution ID: 24

Type: **not specified**

Nuclear physics input for r-process calculations

Tuesday 4 November 2025 16:45 (35 minutes)

Presenter: SURMAN, Rebecca (University of Notre Dame)

Contribution ID: 25

Type: **not specified**

Discussion

Tuesday 4 November 2025 17:20 (15 minutes)

Contribution ID: 26

Type: **not specified**

In between s process and r process: observations from stellar nucleosynthesis in the Milky Way disk and nuclear uncertainties

Wednesday 5 November 2025 09:00 (35 minutes)

Presenter: PIGNATARI, Marco (Konkoly Observatory)

Contribution ID: 27

Type: **not specified**

Advances in Direct Measurement of Neutron Capture

Wednesday 5 November 2025 09:35 (35 minutes)

Presenter: COUTURE, Aaron (Los Alamos National Laboratory)

Contribution ID: **28**

Type: **not specified**

Discussion

Wednesday 5 November 2025 10:10 (15 minutes)

Contribution ID: 29

Type: **not specified**

Level densities and hidden strength from the fluctuation analysis of high-resolution spectra

Wednesday 5 November 2025 10:50 (35 minutes)

Presenter: VON NEUMANN-COSEL, Peter (Institut für Kernphysik, TU Darmstadt)

Contribution ID: 30

Type: **not specified**

Nuclear Level Densities from Evaporation Spectra: Implications for Neutron Capture Reactions

Wednesday 5 November 2025 11:25 (35 minutes)

Presenter: VOINOV, Alexander (Ohio University)

Contribution ID: **31**

Type: **not specified**

Discussion

Wednesday 5 November 2025 12:00 (15 minutes)

Contribution ID: 32

Type: **not specified**

Advancing reaction theory to enable predictions and indirect measurements of neutron capture cross sections for astrophysics

Wednesday 5 November 2025 13:45 (35 minutes)

Presenter: ESCHER, Jutta

Contribution ID: 33

Type: **not specified**

Illuminating Cosmic Nucleosynthesis at Intermediate Neutron Densities via Indirect Neutron-Capture Methods

Wednesday 5 November 2025 14:20 (35 minutes)

Presenter: RICHARD, Andrea (Ohio University)

Contribution ID: **34**

Type: **not specified**

Discussion

Wednesday 5 November 2025 14:55 (15 minutes)

Contribution ID: 35

Type: **not specified**

Projected shell model description for highly excited nuclear states

Thursday 6 November 2025 09:00 (35 minutes)

Presenter: SUN, Yang (Shanghai Jiao Tong University)

Contribution ID: **36**

Type: **not specified**

Recent results from the Oslo Method

Thursday 6 November 2025 09:35 (35 minutes)

Presenter: LARSEN, Ann-Cecilie (University of Oslo)

Contribution ID: 37

Type: **not specified**

Discussion

Thursday 6 November 2025 10:10 (15 minutes)

Contribution ID: **38**

Type: **not specified**

Probing heavy element nucleosynthesis through electromagnetic observations

Thursday 6 November 2025 10:50 (35 minutes)

Presenter: MARTINEZ-PINEDO, Gabriel

Contribution ID: 39

Type: **not specified**

Key neutron capture rates for the r-process nucleosynthesis

Thursday 6 November 2025 11:25 (35 minutes)

Presenter: VESCOVI, Diego (INAF - Astronomical Observatory of Abruzzo & INFN - Perugia)

Contribution ID: **40**

Type: **not specified**

Discussion

Thursday 6 November 2025 12:00 (15 minutes)

Contribution ID: 41

Type: **not specified**

Experimental techniques for neutron-induced capture measurements

Thursday 6 November 2025 13:45 (35 minutes)

Presenter: GUNSING, Frank (CEA Irfu, University Paris-Saclay, France)

Contribution ID: 42

Type: **not specified**

Fluctuation Properties and Nonstatistical Gamma Decays: Probing Chaos and Structure in Atomic Nuclei

Thursday 6 November 2025 14:20 (35 minutes)

Presenter: ISAAK, Johann (TU Darmstadt)

Contribution ID: 43

Type: **not specified**

Discussion

Thursday 6 November 2025 14:55 (15 minutes)

Contribution ID: 44

Type: **not specified**

Neutron-capture reactions in the nucleosynthesis of p-nuclei

Thursday 6 November 2025 15:35 (35 minutes)

Presenter: NISHIMURA, Nobuya

Contribution ID: 45

Type: **not specified**

Photon Strength Functions from proton capture reactions

Thursday 6 November 2025 16:10 (35 minutes)

Presenter: MALATJI, Kgashane (University of California Berkeley)

Contribution ID: 46

Type: **not specified**

Discussion

Thursday 6 November 2025 16:45 (15 minutes)

Contribution ID: 47

Type: **not specified**

Softness in the scissors motion

Friday 7 November 2025 09:00 (35 minutes)

Presenter: CHEN, Fang-Qi (Lanzhou University)

Contribution ID: 48

Type: **not specified**

Isomers and M1 gamma-ray strength

Friday 7 November 2025 09:35 (35 minutes)

Presenter: LIDDICK, Sean (Michigan State University)

Contribution ID: 49

Type: **not specified**

Discussion

Friday 7 November 2025 10:10 (15 minutes)

Contribution ID: 50

Type: **not specified**

Two-Step and Multi-Step Cascade Methods

Friday 7 November 2025 10:50 (35 minutes)

Presenter: KRTICKA, Milan (Charles University, Prague)

Contribution ID: 51

Type: **not specified**

Recent results from the Inverse-Oslo and Shape methods

Friday 7 November 2025 11:25 (35 minutes)

Presenter: WIEDEKING, Mathis (Lawrence Berkeley National Laboratory)

Contribution ID: 52

Type: **not specified**

Discussion

Friday 7 November 2025 12:00 (15 minutes)

Contribution ID: 53

Type: **not specified**

The beta-Oslo method: do{N++}until{break}

Friday 7 November 2025 13:45 (35 minutes)

Presenter: Dr BLEUEL, Darren (Lawrence Livermore National Laboratory)

Contribution ID: 54

Type: **not specified**

Discussion and Conclusions

Friday 7 November 2025 14:20 (50 minutes)