



The NIC-IX Program

Sunday, June 25

17:00 Registration

location: CERN Restaurant #1

Monday, June 26

Introduction & Welcome

location: CERN Main Auditorium

9:00 Welcome

In memory of Al Cameron
J Cowan, U Oklahoma

In memory of John Bahcall
P Parker, Yale U

**1 Stars: observations, evolution & nucleosynthesis
chair: M Wiescher**

9:30 Nuclear astrophysics with gamma-ray line observations
R Diehl, MPE Garching

10:00 From massive stars to supernovae
A Heger, Los Alamos/UC St Cruz

10:30 The rp-process and X-ray bursts
H Schatz, MSU

11:00 break

**2 Experiments in nuclear astrophysics I
chair: A Shotton**

11:45 Underground nuclear astrophysics
H Costantini, U Genova/U Notre Dame

12:15 The $^{26}\text{gAl}(p,\gamma)^{27}\text{Si}$ reaction in Novae
C Ruiz, TRIUMF

12:35 Direct measurement of the $^{18}\text{F}(p,\alpha)^{15}\text{O}$ reaction for application to nova gamma-ray emission
N de Sereville, Louvain-la-Neuve

12:55 Measuring difficult reaction rates involving radioactive beams: A new approach
J D'Auria or TBA, CERN/Simon Fraser U

13:15 lunch break

3 Nuclei far from stability
chair: FK Thielemann

14:30 Nuclear-physics data for modeling of the r-process
KL Kratz, U Mainz

15:00 Progress in nuclei approaching the r-process waiting point at A=195
T Kurtukian-Nieto, Santiago de Compostela/GSI

15:20 Building nuclei from the ground up
G Hagen, ORNL

15:40 Mass measurements
D Lunney, IPN Orsay

16:10 break & poster session 18

4 Big-Bang Nucleosynthesis
chair: C Angulo

17:10 Recent results in Big-Bang nucleosynthesis
A Coc, IPN Orsay

17:40 Is Deuterium cosmological?
D Lubowich, U Hofstra New York

18:00 New measurement of the cross section of the big bang nucleosynthesis reaction $D(\alpha,\gamma)^6\text{Li}$ and its astrophysical impact
F Hammache, IPN Orsay

19:00 Reception **location: CERN Globe of Innovation**



The NIC-IX Program

Tuesday, June 27

**5 Element production & stellar evolution: MP/UMP stars & Novae
chair: A Maeder**

- 8:30 r-process enhanced metal-poor stars
J Cowan, U Oklahoma
- 9:00 The first nova explosions
J José, IEEC Barcelona
- 9:20 Mass loss at very low metallicity: impacts on nucleosynthesis and GRB progenitors
G Meynet, U Geneva
- 9:40 Chemical compositions of neutron-process elements from near UV-observations of low-metallicity stars
I Ivans, Carnegie/Princeton
- 10:10 The frequency of Carbon-enhanced stars in HERES and SDSS
T Beers, MSU

10:30 break & poster session 19

**6 Evidence of nucleosynthesis in stars and presolar grains
chair: R Gallino**

- 11:30 Heavy elements in presolar grains: constraints on conditions in asymptotic giant branch stars
A Davis, U Chicago
- 12:00 On the stellar sources of presolar graphite in primitive meteorites
E Zinner, Washington U
- 12:20 Isotopic composition of presolar spinel grain OC2: Constraining intermediate-mass asymptotic giant branch models
M Lugaro, U Utrecht
- 12:40 Magnetic mixing and nucleosynthesis in AGB stars
M Busso, U Perugia
- 13:00 Accelerator mass spectrometry and nuclear astrophysics
G Korschinek, TU Munich

13:30 lunch break

7 Experiments in nuclear astrophysics: indirect methods
chair: C Spitaleri

14:30 Indirect techniques in nuclear astrophysics - ANCs and THM
R Tribble, Texas A&M

15:00 Reaction rate of $^{15}\text{O}(\alpha,\gamma)^{19}\text{Ne}$ via indirect measurements
W Tan, U Notre Dame

15:20 Study of astrophysically important resonant states in ^{26}Si by the
 $^{28}\text{Si}(^4\text{He},^6\text{He})^{26}\text{Si}$ reaction
YK Kwon, Chung-Ang U Seoul

15:40 Influences on the triple alpha process beyond the Hoyle state
C Diget, U Aarhus

16:00 Experimental determination of reaction rates via Coulomb dissociation
T Motobayashi, RIKEN

16:30 break

8 Experiments in nuclear astrophysics II
chair: Y Nagai

17:00 Weak decay of highly charged ions
F Bosch, GSI Darmstadt

17:30 Alpha-induced reactions in stellar burning
J Görres, U Notre Dame

18:00 Measuring $^{12}\text{C}(\alpha,\gamma)^{16}\text{O}$ with ERNA
D Schürmann, U Bochum

Measurement of the cascade cross section to the 6.049-MeV state in ^{16}O in
 $^{12}\text{C}(\alpha,\gamma)^{16}\text{O}$

C Matei, U Ohio/TRIUMF

18:30 The supernova-nucleosynthesis $^{40}\text{Ca}(\alpha,\gamma)^{44}\text{Ti}$ reaction
M Paul, Hebrew U Jerusalem

Study of the $^{40}\text{Ca}(\alpha,\gamma)^{44}\text{Ti}$ reaction at stellar temperatures with DRAGON
C Vockenhuber, TRIUMF

19:00 Big Poster-Session & Beer [all posters]



The NIC-IX Program

Wednesday, June 28

9	Element production, stellar evolution, and stellar explosions chair: V Smith
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- 8:30 New ideas in the theory of core-collapse supernova explosions
A Burrows, UA Tucson
- 9:00 The role of neutrinos in explosive nucleosynthesis
C Fröhlich, U Basel
- 9:20 Neutrinos and nucleosynthesis in gamma ray bursts
R Surman, Union College New York
- 9:40 Presupernova evolution and explosive nucleosynthesis of massive stars
A Chieffi, INAF Rome

10:10 break & poster session 20
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10	Element production & stellar evolution II chair: R Hoffman
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- 11:00 Globular clusters: Ideal laboratories to test nucleosynthesis and hydrodynamics in low- and intermediate mass stars?
C Charbonnel, U Geneva
- 11:30 Neutron-capture elements in globular cluster M15
K Otsuki, U Chicago
- 11:50 Chemical evolution of C-Zn and r-process elements produced by the first generation stars
Y Ishimaru, Kogakuin Tokyo
- 12:10 Reaction rate uncertainties and the operation of the NeNa and MgAl chains during HBB in intermediate-mass AGB stars
R Izzard, U Utrecht
- 12:30 The new solar chemical composition: does the Sun have a sub-solar metallicity?
M Asplund, ANU Canberra

13:00 lunch break

14:00 Excursions **location: varii**



The NIC-IX Program

Thursday, June 29

11 Nuclear theory in astrophysics chair: K Langanke

- 8:30 Direct reactions in/for astrophysics
C Bertulani, UA Tucson
- 9:00 Cross sections of light-ion reactions calculated from ab initio wave functions
C Forssén, LLNL Livermore
- 9:20 Nuclear models for light systems
P Descouvemont, UL Brussels
- 9:50 Modified nuclear lifetime in hot dense plasmas
G Gosselin, CEA Saclay
- 10:10 Enhanced electron screening in nuclear reactions and radioactive decays
K Czerski, U Szczecin

10:30 break & poster session 21
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12 Cosmology & BBN chair: R Boyd
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- 11:30 Dark matter, dark energy & particle physics
J Ellis, CERN
- 12:00 Supernovae Ia as standard candles
P Garnavich, U Notre Dame
- 12:30 When stars attack! Live radioactivities as signatures of nearby supernovae
B Fields, U Illinois
- 12:50 Electron capture reactions in neutron star crusts: deep heating and
observational constraints
E Brown, MSU
- 13:10 Early star formation nucleosynthesis and chemical evolution in proto-galactic
clouds
G Mathews, U Notre Dame

13:30 lunch break

13 Experiments in nuclear astrophysics III
chair: S Kubono

14:30 AMS measurements of stellar cross sections across the nuclear chart
A Wallner, U Vienna

14:50 Proton resonance scattering on ^7Be
H Yamaguchi, U Tokyo

15:10 Improving the rate of the triple alpha reaction
C Tur, MSU

15:30 High-precision mass measurements for reliable nuclear astrophysics calculations
A Herlert, ISOLDE/CERN

15:50 α -capture reactions and the a-nucleus optical potential for p-process nucleosynthesis
S Harrisopoulos, Demokritos/Athens

16:30 departure to banquet

18:45 banquet

location: Lac Léman



The NIC-IX Program

Friday, June 30

14 Experiments in nuclear astrophysics IV **chair: B Jonson**

- 8:30 Neutron cross sections at n_TOF
M Heil, GSI Darmstadt/FZK Karlsruhe
- 9:00 Measurements of the (n, γ) and (n,n') reaction cross sections on $^{186,187,189}\text{Os}$ and ^{187}Re - ^{187}Os cosmochronology
M Segawa, U Osaka
- Experimental challenges for the Re/Os clock
M Mosconi, FZK Karlsruhe
- 9:30 Electromagnetic excitations in nuclei: from photon scattering to photo dissociation
A Junghans, IKH Rossendorf
- Photodissociation as a tool for nuclear astrophysics
S Müller, TU Darmstadt
- Photodisintegration of ^{181}Ta leading to the isomeric state $^{180\text{m}}\text{Ta}$
S Goko, Konan U Kobe
- 10:15 Neutron capture measurements on the s-process termination isotopes lead and bismuth
C Domingo Pardo, U Valencia/FZK Karlsruhe

10:35 break & poster session 22

15 Galactic & stellar evolution **chair: P Parker**

- 11:30 Early galactic chemical evolution: The Milky Way in a cosmological context
N Prantzos, IAP Paris
- 12:00 Neutron-capture processes in the early Galaxy
W Aoki, NAO Japan
- 12:30 AGB stars evolution and nucleosynthesis
F Herwig, Los Alamos

13:00 lunch break

16 Evolution & evidence of nucleosynthesis in stars: AGBs
chair: R Azuma

14:00 3D hydrodynamical models of the core helium flash
J Lattanzio, Monash U

14:20 The s-process in massive stars: The Shell C-burning contribution
M Pignatari, U Torino

14:40 Light and heavy elements nucleosynthesis in low mass AGB Stars
S Cristallo, INAF, Teramo

15:00 break

17 Experiments & theory in nuclear astrophysics
chair: T Rauscher

15:30 The role of fission in r-process nucleosynthesis
A Kelic, GSI Darmstadt

16:00 Nucleosynthesis in neutrino-heated matter
G Martínez Pinedo, GSI Darmstadt

16:30 Studies of radioactive nuclei and their role in the cosmos
J Blackmon, Oak Ridge

17:00 Conclusion
chair: A Mengoni



The NIC-IX Program – Poster session 18

Monday, June 26, 16:10-17:10

- 18.01 Abundances of Mn, Co and Eu in a sample of 20 F-G disk stars: the influence of hyperfine structure splitting
DEL PELOSO, Eduardo
- 18.02 Coherent effects in nuclear pasta matter
PEREZ GARCIA, Angeles
- 18.03 Pre-supernova models at low metallicities
HIRSCHI, Raphael
- 18.04 Breakup and competing processes in reactions involving weakly bound nuclei
SZANTO DE TOLEDO, Alejandro
- 18.05 $^{18}\text{F}(\alpha, p)^{21}\text{Ne}$ reaction: neutron source for r-process in supernovae
LEE, Hye Young
- 18.06 Abundance clues to the natures of the "Main" and the "Weak" r-processes
KRATZ, Karl-Ludwig; PFEIFFER, Bernd; FAROUQI, Khalil; COWAN, John, J.; SNEDEN, Chris; TRURAN, James, W.
- 18.07 ^{22}Ne a primary source of neutron for the s-process and a major neutron poison in CEMP AGB stars
GALLINO, Roberto
- 18.08 Structure of doorway states above the $K^\pi = (8^+)$, $t_{1/2} \sim 2.0 \times 10^5$ yr isomer in ^{186}Re and their impact on the accuracy of the $^{187}\text{Re}/^{187}\text{Os}$ cosmochronometer
KONDEV, Filip G
- 18.09 Indirect techniques in nuclear astrophysics
MUKHAMEDZHANOV, Akram Zhanov
- 18.10 Measurement of the stellar (n, γ) cross section of ^{54}Fe
COQUARD, Laurent
- 18.11 First measurements of the total and partial stellar neutron cross sections to the s-process branching-point ^{79}Se
DILLMANN, Iris
- 18.12 Present status of the KADoNiS database
DILLMANN, Iris; PLAG, Ralf
- 18.13 Light from the ashes: Explosion physics and nucleosynthesis from the X-ray spectra of Type Ia supernova remnants
BADENES, Carlos

- 18.14 Lead abundance and the weak r-process in the metal-poor star K462 (M15)
HANNAWALD, Michael
- 18.15 The production of germanium in asymptotic giant branch stars
KARAKAS, Amanda
- 18.16 r-process nucleosynthesis in Alfvén wave-driven proto-neutron star winds
SUZUKI, Takeru
- 18.17 Excitation functions of (p,n)-reactions on ^{115}Sn , ^{116}Sn and ^{120}Sn isotopes
SKAKUN, Yevgen
- 18.18 Experimental determination of the $^{41}\text{Ca}(n,\alpha)^{38}\text{Ar}$ reaction cross section as a function of the neutron energy
DE SMET, Liesbeth
- 18.19 Towards a direct measurement of the $^{15}\text{O}(\alpha,\gamma)^{19}\text{Ne}$ cross section: a first approach using the $^{15}\text{O}+\alpha$ elastic scattering
ANGULO, Carmen
- 18.20 Gravitational wave emission during the transition from rapidly differentially rotating neutron stars to strange stars
YASUTAKE, Nobutoshi
- 18.21 Can supernova neutrino nucleosynthesis constrain neutrino oscillation parameters?
YOSHIDA, Takashi
- 18.22 r-process nucleosynthesis in a collapsar
NAGATAKI, Shigehiro



The NIC-IX Program – Poster session 19

Tuesday, June 27, 10:30-11:30

- 19.01 Non-extensive statistical effects on the nuclear equation of state and on nuclear astrophysical problems
LAVAGNO, Andrea
- 19.02 Present-day carbon abundances from early-type stars
NIEVA, Maria Fernanda
- 19.03 Metastability of electron-nuclear astrophysical plasmas
GERVINO, Gianpiero; LAVAGNO, Andrea
- 19.04 Neutron capture studies with a short flight path
WALTER, Stephan
- 19.05 Quantitative spectroscopy of Deneb
SCHILLER, Florian
- 19.06 New experiments on neutron rich r-process Ge-Br isotopes at the NSCL/MSU
QUINN, Matthew
- 19.07 CNO production in the first generation stars
EKSTRÖM, Sylvia
- 19.08 Heavy element nucleosynthesis in the MHD jet explosions of core-collapse supernovae
NISHIMURA, Nobuya
- 19.09 Photodisintegration of ^{80}Se , ^{94}Zr , and ^{108}Pd as a probe of neutron capture for radioactive nuclei
UTSUNOMIYA, Hiroaki
- 19.10 Observational constraints on the cosmology with a decaying cosmological term
NAKAMURA, Riou
- 19.11 The s-process branching at ^{186}Re revised
MOHR, Peter
- 19.12 Measurement of the stellar (n,γ) cross section of ^{182}Hf
VOCKENHUBER, Christof
- 19.13 Light element production in the circumstellar matter of Type Ic supernovae at low metallicity
NAKAMURA, Ko
- 19.14 Exotic cooling on neutron stars with different surface compositions
NODA, Tsuneo

- 19.15 Phase-transition phenomenology of frustrated nuclear matter in compact stars
NAPOLITANI, Paolo
- 19.16 Dielectronic recombination rates in astrophysical plasmas
QUARATI, Piero
- 19.17 Universality of the p process
HAYAKAWA, Takehito
- 19.18 Cosmic clock and thermometer for neutrino process
HAYAKAWA, Takehito
- 19.19 The high-resolution spectroscopy of cool extremely metal-poor carbon-rich stars
ZACS, Laimons
- 19.20 Extraction of resonant component from spin-polarization observables
YAMAGUCHI, Mitsutaka
- 19.21 Equation of state and neutrino signal from collapsing stellar cores
YUDIN, Andrey
- 19.22 Asymmetric collapsing supernovae explosion with rotation
MANUKOVSKIY, Konstantin
- 19.23 Experimental studies of shell-model basis states near ^{132}Sn
WALTERS, William
- 19.24 New study of the astrophysical reaction $^{13}\text{C}(\alpha, n)^{16}\text{O}$ via the $^{13}\text{C}(^7\text{Li}, t)^{17}\text{O}$ transfer reaction
PELLEGRITI, Maria Grazia; HAMMACHE, Fairouz
- 19.25 Measurement of $^3\text{He}(\alpha, \gamma)^7\text{Be}$ with ERNA recoil separator
DI LEVA, Antonino
- 19.26 First experimental constraints on the interference of $3/2+$ resonances in the $^{18}\text{F}(p, \alpha)^{15}\text{O}$ reaction
CHAE, K. Y.
- 19.27 Nuclear superfluidity and the cooling time of neutron stars
SANDULESCU, Nicolae
- 19.28 Low-mass AGB stars abundance predictions with improved stellar cross sections
BISTERZO, Sara
- 19.29 SNRs as probes of chemical composition of interstellar medium
TELEZHINSKY, Igor; HNATYK, Bohdan; PETRUK, Oleh
- 19.30 Nucleosynthesis of Binary low mass zero-metallicity stars
LAU, Ho Bun, Herbert
- 19.31 Synthesis of CNO elements in standard BBN
IOCCO, Fabio

- 19.32 Shell model spin and parity dependent nuclear level densities for nuclear reaction rates
HOROI, Mihai
- 19.33 Nucleosynthesis and mixing in rotating AGB stars at low metallicity
DECRESSIN, Thibault
- 19.34 The $^{25}\text{Al}(p,\gamma)^{26}\text{Si}$ reaction rate in novae
BARDAYAN, Dan
- 19.35 The QSE-reduced nuclear network for supernovae nucleosynthesis
PARETE-KOON, Suzanne
- 19.36 Investigation of nucleosynthesis capture reactions by using ^8Li radioactive beam transfer reactions
GUIMARAES, Valdir



The NIC-IX Program – Poster session 20

Wednesday, June 28, 10:10-11:00

- 20.01 Level structure of ^{19}Ne from studies of the $^{17}\text{O}(^3\text{He},n)^{19}\text{Ne}$ reaction
HORNISH, M.; BRUNE, C.
- 20.02 The rp-process in core-collapse supernovae
WANAJO, Shinya
- 20.03 The weak r-process in core-collapse supernovae
WANAJO, Shinya
- 20.04 Elastic scattering of ^8B on Pb, liquid Hydrogen and liquid Helium targets and the $^7\text{Be}(p,\gamma)^8\text{B}$ S-factor
BISHOP, Shawn
- 20.05 Low energy nuclear reaction measurements using monolithic silicon telescope
NISHIMURA, Shunji
- 20.06 Photonuclear reactions of light nuclei studied with high-intensity real photon beams
SHIMA, Tatsushi
- 20.07 Supernova physics with a low-energy beta-beam
JACHOWICZ, Natalie; MCLAUGHLIN, Gail
- 20.08 The detailed abundance patterns of light neutron-capture elements in very metal-poor stars
HONDA, Satoshi
- 20.09 Neutrino opacities in a relativistic non interacting neutron gas
VANTOURNHOUT, Klaas
- 20.10 Mass measurement of neutron-deficient nuclei close to the $N = Z$ line
HAGER, Ulrike
- 20.11 Hydrodynamic models of Type I X-ray bursts
JOSE, Jordi
- 20.12 Enhanced $d(d,p)t$ cross section in metallic environments
RAIOLA, Francesco
- 20.13 Thermonuclear burning ignition and propagation along the surface of neutron star during X-ray bursts
GRYAZNYKH, Dmitry A.; SIMONENKO, Vadim A.
- 20.14 Measurement of the partial (n,γ) cross section to ^{176}Lu at s-process temperatures
WINCKLER, Nicolas

- 20.15 Mapping of the $^{12}\text{C}^*$ and $^9\text{B}^*$ states of astrophysical interest via the $^{10}\text{B}(^3\text{He}, p\alpha\alpha\alpha)$ reaction
ALCORTA, Martin
- 20.16 Fission fragments of actinide and superheavy nuclides in primordial Solar system material and problem of their origin
GONCHAROV, Georgy
- 20.17 A nonperturbative field-theoretical model for nuclear matter without the sigma and omega
JENA, Saktidhar
- 20.18 Spectroscopic analyses of subluminescent B stars in binaries
GEIER, Stephan
- 20.19 A new approach to the solution of large thermonuclear burning networks
GUIDRY, Mike
- 20.20 Experiments and observations of light r-process nuclei
MONTES, Fernando
- 20.21 Neutrino nucleosynthesis of the exotic nuclei ^{138}La and ^{180}Ta by charged current reactions
BYELIKOV, Anatoliy
- 20.22 Measurement of the $^{62}\text{Ni}(n,\gamma)^{63}\text{Ni}$ reaction cross section at $3 < E_n < 100$ keV
NAGAI, Yasuki
- 20.23 Study of unbound ^{19}Ne states via the proton transfer reaction $^2\text{H}(^{18}\text{F}, \alpha + ^{15}\text{O})n$
ADEKOLA, A.; BRUNE, C. R.
- 20.24 Multiple particle break-up studies in the neutron rich Li isotopes
MADURGA FLORES, Miguel
- 20.25 Activation method for cross section measurements related to the p-process nucleosynthesis
ÖZKAN, Nalan
- 20.26 Activation measurement of the $^{19}\text{F}(n,\gamma)^{20}\text{F}$ cross section at $kT=25$ keV
UBERSEDER, Ethan
- 20.27 The late-time supernova evolution induced by anisotropic neutrino radiation and the r-process environment
MOTIZUKI, Yuko
- 20.28 Nucleosynthesis in AGB stars: Results from the STARS code
STANCLIFFE, Richard
- 20.29 E2 and E1 cross section of the $^{12}\text{C}(\alpha,\gamma)^{16}\text{O}$ reaction obtained at $E_{\text{cm}} = 1.6$ and 1.4 MeV
MAKII, Hiroyuki
- 20.30 Signatures of AGB nucleosynthesis in dwarf galaxies
FENNER, Yeshe

- 20.31 Single point off-center helium ignitions as origin of some type Ia supernovae
FORCADA, Ramon; GARCÍA-SENZ, Domingo; JOSÉ, Jordi
- 20.32 Fission recycling in the r-process and formation of the second peak with $A \sim 130$
PANOV, Igor
- 20.33 Neutrino-induced nucleosynthesis as a probe into the mechanism of supernovae
NADYOZHIN, Dmitrij
- 20.34 Nuclear structure properties of neutron-rich r-process isotopes
WOEHR, Andreas
- 20.35 Measurement of the temperature dependence of ^7Be decay in different chemical environments
LIMATA, Benedicta Normanna
- 20.36 Astrophysics at the future rare isotope accelerator
SMITH, Michael
- 20.37 Neutron capture during the freeze-out of the r-process
FAROUQI, Khalil
- 20.38 Astrophysical implications of the $^{139}\text{La}(n,\gamma)$ and $^{151}\text{Sm}(n,\gamma)$ cross sections measured at n_TOF
STEFANO, Marrone



The NIC-IX Program – Poster session 21

Thursday, June 29, 10:30-11:30

- 21.01 New features in the computational infrastructure for nuclear astrophysics
SMITH, Michael S.
- 21.02 Monte Carlo simulations of Type I X-ray burst nucleosynthesis
ROBERTS, Luke F.
- 21.03 High precision measurements along the rp-process path
GALAVIZ, Daniel
- 21.04 On the contribution of classical novae to the ^{26}Al content of the Galaxy
HERNANZ, Margarita
- 21.05 Neutrino-induced fission on nuclei near the r-process paths
BORZOV, Ivan
- 21.06 Study of the $^{10}\text{B}(p,\alpha)^7\text{Be}$ reaction through the Trojan Horse Method
GIMENEZ DEL SANTO, Marcelo; GAMEIRO MUNHOZ, Marcelo
- 21.07 Neutrino-nucleus cross sections and their role in supernovae
BLACKMON, Jeff
- 21.08 Determination of the astrophysical S-factor for the $^{12}\text{N}(p,\gamma)^{13}\text{O}$ reaction from the proton transfer reaction $^{14}\text{N}(^{12}\text{N}, ^{13}\text{O})^{13}\text{C}$
BANU, Adriana
- 21.09 Lifetime of the 4.03 MeV state in ^{19}Ne and the $^{15}\text{O}(\alpha,\gamma)^{19}\text{Ne}$ reaction rate
KANUNGO, Rituparna
- 21.10 Microdynamical effects on momentum distribution in stellar plasmas
FERRO, Fabrizio; QUARATI, Piero
- 21.11 Quantum mechanical ab-initio simulation of the electron screening effect in metal deuteride crystals
HUKE, Armin
- 21.12 About possible explanations to the lines of radioactive elements in the spectrum of Przybylski's star
YUSHCHENKO, Alexander; GOPKA, Vera; GORIELY, Stephane
- 21.13 Heaviest s-process elements in the atmospheres of barium stars
GOPKA, Vera F.; YUSHCHENKO, Alexander V.; LAMBERT, David L.; DRAKE, Natalya A.

- 21.14 Evidence of Na enhancement in Hyades giants from high-resolution spectroscopy
SCHULER, Simon
- 21.15 Multi-channel R-matrix analysis of CNO cycle reactions
SIMPSON, Edward
- 21.16 Efficient approximations of neutrino physics for three-dimensional simulations of stellar core collapse
LIEBENDÖRFER, Matthias
- 21.17 Abundances of heavy metals and lead isotopic ratios in subluminescent B stars
HEBER, Ulrich
- 21.18 Direct measurement of stellar neutron capture rates of ^{14}C and comparison with the Coulomb breakup method
REIFARTH, Rene
- 21.19 The roles of nuclear physics during stellar core collapse
HIX, W. Raphael
- 21.20 Neutrinos, fission cycling and the r-process
MCLAUGHLIN, Gail
- 21.21 Nucleosynthesis in early proton-rich supernova winds
PRUET, Jason; HOFFMAN, Robert; WOOSLEY, Stan; JANKA, Hans-Thomas
- 21.22 Compound-nuclear reaction cross sections via surrogate measurements
ESCHER, Jutta
- 21.23 Experimental nuclear astrophysics with recoil mass separators
GIALANELLA, Lucio
- 21.24 A high resolution spectroscopic study of seven metal-deficient stars
TANNER, John
- 21.25 Laminar flame acceleration by neon enrichment in white dwarf supernovae
CHAMULAK, David
- 21.26 Closing the cold CNO cycle: A new measurement of $^{19}\text{F}(p,\gamma)$
COUTURE, Aaron
- 21.27 Precision mass measurements of neutron-rich nuclei from Ge to Pd and their r-process implications
JOKINEN, Ari
- 21.28 Measurement of transfer reactions on neutron-rich fission fragments in inverse kinematics
PAIN, Steven
- 21.29 r-process experimental campaign at the National Superconducting Cyclotron Laboratory (NSCL/MSU)
PEREIRA, Jorge

- 21.31 Experimental nuclear level densities and interpretation within the microcanonical ensemble
GUTTORMSEN, Magne
- 21.32 Determination of low ${}^7\text{Be}$ activity as a tool to measure the ${}^3\text{He}(\alpha,\gamma){}^7\text{Be}$ cross section
GYÜRKY, György
- 21.33 CARINA: a European network for nuclear astrophysics
ANGULO, Carmen
- 21.34 Nucleosynthesis in super AGB stars
DOHERTY, Carolyn



The NIC-IX Program – Poster session 22

Friday, June 30, 10:35-11:30

- 22.01 On the origin of the high helium sequence in Omega Centauri
MEYNET, Georges; MAEDER, André
- 22.02 A charge breeder for nuclear astrophysics experiments?
DELAHAYE, Pierre; MARIE-JEANNE, Mélanie
- 22.03 Neutron capture cross sections of the Zr isotopes: probing neutron exposure and neutron flux in Red Giants
TAGLIENTE, Giuseppe
- 22.04 $^{25}\text{Al}+p$ elastic scattering with CRIB
PEARSON, Jonty
- 22.05 Isospin symmetry in nucleon and alpha-decays of mirror nuclei and its astrophysical applications
TIMOFEYUK, Natalia
- 22.06 Primordial magnetic field constrained from CMB anisotropies and its generation and evolution before, during and after the BBN
YAMAZAKI, Dai
- 22.07 Neutrino signal of supernova shock wave propagation: MSW distortion of the spectra and nucleosynthesis
KAWAGOE, Shiou
- 22.08 The effective long range interaction and resonances in naa system at astrophysical energies
TAKIBAYEV, Nurgali
- 22.09 A case for fast stellar rotation at very low metallicities: C and N in very metal poor halo stars
CHIAPPINI, Cristina
- 22.10 Suppression of the neutron channel in low energy d+d reactions within metallic media
CZERSKI, Konrad
- 22.11 Nuclear reaction and structure databases of the National Nuclear Data Centre
PRITYCHENKO, Boris
- 22.12 Neutrons and features of primordial nucleosynthesis
TAKIBAYEV, Nurgali

- 22.13 The TRIUMF annular chamber of tracking and identification of charged particles (TACTIC)
RUPRECHT, Götz
- 22.14 The influence of electron screening on half lives
RUPRECHT, Götz; BUCHMANN, Lothar
- 22.15 Beta-beam born neutrino - an alternative to double beta decay to determine the Majorana neutrino mass
SUJKOWSKI, Ziemowid
- 22.16 Can radiative decay of long-lived particles after the BBN solve the cosmological ${}^6\text{Li}$ problem?
KUSAKABE, Motohiko
- 22.17 Dating of the ${}^{60}\text{Fe}$ -peak in a deep sea manganese crust
KNIE, Klaus; WALLNER, Anton
- 22.18 Chemical mixing in galactic BA-type supergiants
FIRNSTEIN, Markus
- 22.19 Neutrino-nucleus inelastic scattering reactions for core-collapse supernovae
SAMPAIO, Jorge; JUODAGALVIS, Andrius
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