Program

Sunday, July 18

15:00 - 20:00	Registration (Foyer, Stadthalle)
18:00 - 22:00	Welcome reception (Foyer, Stadthalle)

Monday, July 19

09:00	Welcome address

09:15	Session 1: The Big Bang Chair: Michael Heil		Page
09:15	25 m	Gary Steigman, *Ohio State University* Primordial Nucleosynthesis: predicted and observed abundances	1
09:45	12 m	Richard Cyburt, *NSLC, MSU* Big Bang Nucleosynthesis constrains on Supersymmetry	2
10:00	12 m	Martin Erhard, *INFN, Sezione di Padova* Study of the BBN reaction D(α,γ)^{6}Li deep underground with LUNA	3

10:15 - 10:45	Coffee break (sponsored by Pfeiffer Vacuum GmbH)

10:45	Session 2: The first stars Chair: Hans Ludwig		Page
10:45	25 m	Volker Bromm, *University of Texas* Formation of the first stars	4
11:15	25 m	Anna Frebel, *Harvard-Smithsonian Center for Astrophysics* Observations of the most metal-poor stars and what they tell us about the early Universe	5
11:45	12 m	Wako Aoki, *National Astronomical Observatory of Japan* A systematic study of extremely metal-poor stars with SDSS/Subaru	6
12:00	12 m	Andreas Korn, *Department of Physics and Astronomy, Uppsala University* David vs Goliath: pitfalls and prospects in abundance analysis of dwarf vs giant stars	7

12:15 - 14:00	Lunch break

14:00		Session 3: Chemical evolution and Stars Chair: Maurizio Busso	Page
14:00	25 m	Andrew McWilliam, *Carnegie Observatories* Galactic chemical evolution – the observational side	8
14:30	25 m	Nikos Prantzos, *Institut d'Astrophysique de Paris* Topics in Galactic Chemical Evolution	9
15:00	25 m	Norbert Langer, *Argelander-Institut, Universität Bonn* Evolution of Massive Stars	10
15:30	25 m	Falk Herwig, *University of Victoria* Evolution of low- and intermediate mass stars	11
16:00	15 m	Casey Meakin, *University of Arizona* 3D stellar models	12
16:20	12 m	Walter Maciel, *University of Sao Paulo* Nucleosynthesis and chemical evolution of intermediate mass stars: results from planetary nebulae	13

16:35-17:00	Coffee break (sponsored by Pfeiffer Vacuum GmbH)

17:00		Session 4: Stars Chair: Shigeru Kubono	Page
17:00	25 m	Heide Costantini, *INFN-Genova* Reaction rate measurements in underground laboratories	14
17:30	12 m	Antonino Di Leva, *Seconda Università di Napoli* The 3He(α,γ)7Be cross section at astrophysical relevant energies	15
17:45	12 m	Oliver Kirsebom, *Aarhus University* The ^{8}B neutrino spectrum	16
18:00	12 m	Thomas Neff, *GSI Helmholtzzentrum für Schwerionenforschung, Darmstadt* Microscopic Nuclear Structure and Reaction Calculations in the FMD Approach	17
18:15	12 m	Kunihiro Fujita, *Kyushu University, Fukuoka* Direct Measurement of ^{4}He(^{12}C,^{16}O)γ cross section near stellar energy	18
18:30	12 m	Lucio Gialanella, *INFN, Sezione di Napoli* Carbon fusion reactions in stars	19
18:45	12 m	Dmitri Fedorov, *Aarhus University* Density and temperature dependence of production rates of ^{6}He, ^{9}Be, ^{12}C	20

Tuesday, July 20

09:00 Session 5: Grains and gamma-ray observations Chair: Ernst Zinner			Page
09:00	25 m	Peter Hoppe, *Max Planck Institute for Chemistry, Mainz* Measurements of presolar grains	21
09:30	12 m	Larry Nittler, *Carnegie Institution of Washington* Extreme ^{54}Cr-rich oxide grains in meteorites: Evidence for a single late supernova injection into the Solar System	22
09:45	12 m	Michael Savina, *Argonne National Laboratory* Chromium Isotopic Compositions in Presolar SiC Grains	23
10:00	12 m	Roland Diehl, *MPE, Garching* INTEGRAL observations of gamma-ray lines from radioactive decays	24

10:15-10:45	Coffee break (sponsored by Pfeiffer Vacuum GmbH)

10:45 Session 6: Core-collapse supernovae Chair: Kohsuke Sumiyoshi			Page
10:45	25 m	Alessandro Chieffi, *IASF-INAF, Rome* The final stages of stellar evolution	25
11:15	25 m	Matthias Liebendörfer, *University of Basel* Models and direct observables of core-collapse supernovae	26
11:45	12 m	Bronson Messer, *Oak Ridge National Laboratory* Core-collapse supernova simulations with CHIMERA	27
12:00	12 m	Alan Dzhioev, *Université Libre de Bruxelles* Gamow-Teller strength distributions at finite temperature and electron capture in stellar environments	28
12:15	12 m	Carola Ellinger, *Arizona State University* Delivery of Supernova Material to the ISM through Ejecta Knots	29

12:30-14:00	Lunch break

14:00 Session 7: Hypernovae and mergers Chair: Friedrich-Karl Thielemann			Page
14:00	25 m	Ken Nomoto, *University of Tokyo* Hypernova and Gamma-Ray Bursts	30
14:30	12 m	Gail McLaughlin, *North Carolina State University* Nucleosynthesis from Black Hole Accretion Disks	31
14:45	25 m	Stephan Rosswog, *Jacobs University Bremen* Black Hole and Neutron Star Mergers	32
15:15	12 m	Brian Metzger, *Princeton University* Radioactively Powered Electromagnetic Counterparts of Neutron Star Mergers	33
15:30	12 m	Yuhri Ishimaru, *International Christian University, Tokyo* Enrichment of the r-process elements in the sub-halos as building blocks of the Milky Way Halo	34

15:45-16:15	Coffee break (sponsored by Vacuumtechnik Müller GmbH)

16:15 Session 8: Compact objects Chair: Jürgen Schaffner-Bielich			Page
16:15	25 m	Jim Lattimer, *Stony Brook, New York* The Nuclear Equation of State	35
16:45	15 m	Ingrid Stairs, *University of British Columbia* Pulsar Mass Measurements	36
17:05	15 m	Ralph Neuhäuser, *Friedrich-Schiller-Universität Jena* Constraints on neutron-star theories from nearby neutron star observations	37
17:25	12 m	Klaas Vantournhout, *GSI Helmholtzzentrum für Schwerionenforschung* Nuclear pasta with a touch of quantum: towards the dynamics of bulk fermion systems	38
17:40	12 m	Stefan Typel, *GSI Helmholtzzentrum für Schwerionenforschung* Clusters in dense matter and the equation of state	39
17:55	12 m	Michael Famiano, *Western Michigan University* Experimental applications of the Nuclear Equation of State to Neutron Star dynamics	40
18:10	12 m	Nobutoshi Yasutake, *National Astronomical Observatory of Japan* Quark-Hadron mixed phase with hyperons in proto-neutron stars	41

18:30 -22:00	Poster viewing dinner (sponsored by Stefan Stahl Elektronik-Entwicklung)

Wednesday, July 21

09:00 Session 9: The s-process I Chair: Alberto Mengoni			Page
09:00	25 m	Amanda Karakas, *Australian National University* The s-process in AGB stars	42
09:30	25 m	Aaron Couture, *Los Alamos National Laboratory* The experimental side of the s-process	43
10:00	12 m	Sergio Cristallo, *Universidad de Granada* Nucleosynthesis in very low metallicity AGB stars: traces from proton ingestion episodes	44
10:15	12 m	Matthew Taggart, *University of York* The first direct measurement of $^{17}O(\alpha,\gamma)^{21}Ne$ and its impact upon s-process abundances	45

10:30 -11:00	Coffee break (sponsored by PINK GmbH Vakuumtechnik)

11:00 Session 10: The s-process II Chair: Franz Käppeler			Page
11:00	12 m	Sam Austin, *Michigan State University, NSCL* Sensitivity of ^{26}Al, ^{44}Ti and ^{60}Fe Production in Core-Collapse Supernovae to Uncertainties in the 3-α and $^{12}C(\alpha,\gamma)^{16}O$ Reaction Rates	46
11:15	12 m	Georg Rugel, *Technische Universität München* Half-life of ^{60}Fe	47
11:30	12 m	Claudia Lederer, *VERA-Laboratory, University of Vienna* New measurement of the astrophysically important reaction $^{62}Ni(n,\gamma)$ at n_TOF	48
11:45	12 m	Iris Dillmann, *GSI and Universität Giessen* First measurement of the 64Ni(γ,n) cross section	49

12:00 - 12:15	Conference photo in front of the Stadthalle
12:15 - 14:00	Lunch break
15:00 - 18:00	Excursions
19:00 - 23:00	Conference dinner at Restaurant Molkenkur

Thursday, July 22

09:00 Session 11: Novae Chair: Shawn Bishop			Page
09:00	25 m	Jordi Jose, *Univ. Politecnica de Catalunya, Barcelona* Novae: theory and observations	50
09:30	12 m	Anne Sallaska, *Center for Experimental Nuclear Physics and Astrophysics* Destruction of ^{22}Na in Novae: Surprising Results from an Absolute Measurement of ^{22}Na(p,γ) Resonance Strengths	51
09:45	12 m	Anuj Parikh, *Technische Universität München* The ^{33}S(p,γ)^{34}Cl reaction in classical nova explosions	52
10:00	12 m	Milan Matos, *Louisiana State University* Unbound States of ^{32}Cl Relevant for Novae	53

10:15 - 10:45	Coffee break (sponsored by Varian Magnetic Technology Center)

10:45 Session 12: X-ray bursts Chair: Karsten Riisager			Page
10:45	25 m	Hendrik Schatz, *Michigan State University, NSCL* The rp-process in X-ray bursts	54
11:15	12 m	Chris Wrede, *University of Washington, Seattle* Precision measurements of ^{20}Na, ^{24}Al, ^{28}P, ^{32}Cl, and ^{36}K for the rp-process	55
11:30	12 m	Catherine Deibel, *JINA, Physics Division, Argonne* Studying the (α,p)-process in X-ray Bursts using Radioactive Ion Beams	56
11:45	15 m	Ari Jokinen, *University of Jyväskylä* Mass measurements on the rp-process path	57
12:05	12 m	Emma Haettner, *Justus-Liebig Universität Gießen* Mass measurements of proton-rich nuclides in the region of A=85 and their impact on the rp-process	58

12:20 - 14:00	Lunch break

14:00	Session 13: Explosive nucleosynthesis: νp-process, ν-process and p-process Chair: Brian Fulton		Page
14:00	25 m	Thomas Rauscher, *University of Basel* Explosive Nucleosynthesis and the p-process	59
14:30	12 m	Fernando Montes, *Michigan State University, NSCL* Production of light element primary process nuclei in supernova neutrino-driven winds	60
14:45	12 m	Seiya Hayakawa, *University of Tokyo* Direct determination of the $^{11}C(\alpha,p)^{14}N$ reaction rate with CRIB: an alternative synthesis path to the CNO elements	62
15:00	12 m	Ko Nakamura, *National Astronomical Observatory of Japan* The neutrino-process and light element production	63
15:15	12 m	Donald Lubowich, *Hofstra University* Observational Tests of Neutrino Nucleosynthesis in Supernovae: Li and B in the IC443 SNR	64
15:30	12 m	Claudia Travaglio, *Astronomical Observatory of Turin* p-process nucleosynthesis coupled to multidimensional SNIa models	65

15:45-16:15	Coffee break (sponsored by Varian Magnetic Technology Center)

16:15	Session 14: Type Ia supernovae Chair: Ani Aprahamian		Page
16:15	25 m	Jordi Isern, *Institute for Space Sciences (CSIC-IEEC)* Type Ia Supernova: Observations and Theory	66
16:45	15 m	Friedrich Röpke, *Max-Planck-Institut für Astrophysik* Multi-dimensional models of Type Ia supernovae	67
17:05	12 m	Michael Zingale, *Stony Brook University* Multi-dimensional Models of Convection Preceding Type Ia Supernovae	68
17:20	12 m	David Chamulak, *Argonne National Laboratory* Nucleosynthesis in surface detonation models of Type Ia supernovae	69

18:00-22:00	Poster viewing dinner

Friday, July 23

09:00	Session 15: The p-process and exotic nuclei Chair: Kerstin Sonnabend		Page
09:00	25 m	Zsolt Fülöp, *ATOMKI, Debrecen* Experiments on reaction rates for the p-process	70
09:30	12 m	Nalan Özkan, *Kocaeli University* Proton capture reaction cross section measurements on ^{162}Er for the astrophysical γ-process	71
09:45	25 m	Jacek Dobaczewski, *University of Warsaw* Extended energy density functionals and ground-state correlations in nuclei	72
10:15	25 m	Yuri Litvinov, *Max-Planck Institut for Nuclear Physics* Mass and lifetime measurements of stored exotic nuclei	73

10:45-11:15	Coffee break (sponsored by RoentDek Handels GmbH)

11:15 Session 16: The r-process I Chair: Yong-Zhong Qian			Page
11:15	25 m	Christopher Sneden, *Department of Astronomy, Austin* r-process enhanced metal-poor stars	74
11:45	12 m	Magdalena Kowalska, *MPIK, Heidelberg* High-precision mass measurements at ISOLTRAP for nucleosynthesis studies	75
12:00	12 m	John Cowan, *University of Oklahoma* New n-Capture Element Abundance Determinations in an r-Process Enriched Star	76
12:15	12 m	Beatriz Barbuy, *Universidade de Sao Paulo* HST-STIS abundances in the uranium-rich metal-poor star CS31082-001	77
12:30	12 m	Satoshi Honda, *Gunma Astronomical Observatory* Enrichment of heavy elements in the Sextans dwarf Spheroidal Galaxy	78

12:45-14:00	Lunch break

14:00 Session 17: The r-process II Chair: Karlheinz Langanke			Page
14:00	25 m	Shinja Wanajo, *Technische Universität München* The r-process -- the theoretical/astrophysical side	79
14:30	12 m	Andy Gallagher, *Centre for Astrophysics Research, Hertfordshire* An inconvenient truth: The low r-process fraction in the metal-poor subgiant star HD 140283	80
14:45	12 m	Khalil Farouqi, *University of Heidelberg* Co-Production of Light and Heavy p-, s- and r-Process Isotopes in the High-Entropy Wind of Core-Collapse Supernovae	81
15:00	12 m	Almudena Arcones, *University of Basel* Explosive nucleosynthesis: nuclear physics impact using neutrino-driven wind simulations	82
15:15	12 m	Ándres Zuker, *IPHC, IN2P3-CNRS, Strasbourg* The anatomy of the simplest Duflo-Zuker mass formula	83
15:30	12 m	Jose Benlliure, *University of Santiago de Compostela* Production and beta half-lives of heavy neutron-rich nuclei approaching the r-process path at N=126	84

15:45-16:15	Coffee break (sponsored by RoentDek Handels GmbH)

16:15 Session 18: Future facilities Chair: Lyudmila Mashonkina			Page
16:15	25 m	Reiner Krücken, *Technische Universität München* Future radioactive beam facilities: RIBF, FAIR, FRIB	85
16:45	25 m	Michael Wiescher, *University of Notre Dame* Future Facilities for probing Stellar Reaction Processes	86
17:15	25 m	Timothy Beers, *Michigan State University* Future Surveys for Metal-Poor Stars	87
17:45	25 m	Inese Ivans, *University of Utah* The Future of High Resolution Spectroscopy of Metal-Poor Stars	88

18:15-18:30	Farewell address