11\textsuperscript{th} Russbach School on Nuclear Astrophysics

Program

SUNDAY, March 9

14:00 -- 19:00  Registration at Hotel-Landhaus Ausswinkl

19:00 -- 19:45  Welcome cocktail

19:45  Dinner
MONDAY, March 10

Chairperson S. Bishop

08:30 -- 08:50 The organizers Welcome

08:50 -- 09:35 M. Aliotta “Introduction to Nuc. Astrophysics I”

09:40 -- 10:25 M. Aliotta “Introduction to Nuc. Astrophysics II”

10:25 -- 10:50 Coffee Break

10:50 -- 11:50 M. Busso “Cosmochemistry and presolar grains”


12:10 -- 16:00 Lunch / discussions / outdoor activities

Chairperson M. Busso

16:00 -- 16:45 M. El Eid “Signature of heavy element production in the early galaxy”

16:45 -- 17:15 Coffee Break

17:15 -- 18:15 M. Spite “Heavy elements abundance pattern in extremely metal-poor stars”

18:15 -- 19:00 L. Mashonkina “Strongly r-process enhanced stars: constraining the pure r-process Ba/Eu abundance ratio from observations”

19:15 Dinner
TUESDAY, March 11

Chairperson  J. Stone

08:30 -- 09:30  P. Möller  “The Macroscopic-Microscopic Nuclear Structure Model Foundations and Results”

09:30 -- 10:15  W. B. Walters  “Radioactive decay, nuclear structure and the creation of the elements”

10:15 -- 10:40  Coffee Break

10:40 -- 11:25  O. Sorlin  “Shell evolution and nuclear forces: some remarkable features”

11:25 -- 12:10  K. Sieja  “Recent developments within the large scale shell model framework and their interest for astrophysics”

12:10 -- 16:00  Lunch / free time

Chairperson  W. B. Walters

16:00 -- 16:45  F. Hammache  “The 7Li cosmological problem: is there a nuclear physics solution?”

16:45 -- 17:05  T. D. Le  “Strong limit on the spatial and temporal variations of the fine-structure constant”

17:05 – 17:25  Y. Hirai  “Chemo-Dynamical Evolution of Dwarf Spheroidal Galaxies”

17:25 -- 17:45  Coffee Break

17:45 -- 18:30  H. Ravn  “Methods for making isotope selective beams in ISOL facilities”


19:30  Dinner
WEDNESDAY, March 12

Chairperson L. Mashonkina

08:30 -- 09:30  T. Motobayashi  “Nuclear astrophysics studies at the RIKEN RIBF”

09:30 -- 10:15  S. Nishimura  “Decay spectroscopy relevant to the r-process nucleosynthesis”

10:15 -- 10:35  Coffee break

10:35 -- 10:55  A. Spiridon  “Reaction Rates for Explosive Nuclear Synthesis”

10:55 -- 11:40  N. Stone  “New experimental initiatives in the study of beta-delayed neutron emission”

11:40 -- 12:00  A.-I. Gheorghe  “Study of Ga populated from the β decay of Zn

12:00 -- 16:00  Lunch / free time

Chairperson M. El Eid

16:00 -- 16:20  J. Mayer  “Activation Experiments for Nuclear Astrophysics”

16:20 -- 16:50  P. Ludwig  “60Fe in terrestrial and lunar samples by AMS”

16:50 -- 17:15  Coffee break

17:15 -- 18:00  R. Egli  “From supernova to terrestrial dirt: a journey between astrophysics, biology, and geophysics”

18:10  Hike / transport to Franzl Alm

19:15  Kasnockn-Dinner

20:15  Music & Dancing
THURSDAY, March 13

Chairperson: G. Pizzone

09:00 -- 09:30  R. Diehl  “Gamma-ray astronomy”

09:30 -- 09:50  A. Gostojić  “A new generation of γ-ray telescope”

09:50 -- 10:10  L. Morales-G. “^{12}C+^{12}C reactions at astrophysical energies: Tests of targets behaviour under beam bombardment”

10:10 -- 10:45  Coffee Break / school-photo

10:45 -- 11:30  L. Lamia  “The Trojan Horse Method and its main features for experimental nuclear astrophysics”

11:30 -- 11:50  M. Giarusso  “The Pre Main Sequence binaries, a benchmark for FRANEC”

11:50 -- 12:10  C. Bruno  “A direct underground study of the ^{17}O(p,α)^{14}N reaction at energies of astrophysical interest”

12:10 -- 16:00  Lunch / free time

Chairperson: F. Hammache

16:00 -- 16:20  F. Cavanna  “A direct measurement of the ^{22}Ne(p,γ)^{23}Na reaction at LUNA and at HZDR”

16:20 -- 16:40  F. Boulay  “Study of the ^{19}Ne spectroscopic properties of astrophysical interest via a new improved inelastic scattering method”

16:40 -- 17:10  M. Lipoglavsek  “On the existence of high-Z electron screening in metals”

17:10 -- 17:30  Coffee break

17:30 -- 17:50  A. Cvetinović  “Electron screening effect in (p,n) and (p,γ) reactions”

17:50 -- 18:35  A. Spyrou  “p-process overview and status of experimental efforts”
18:35 -- 18:55  M. Baldenhofer  “Reaction studies for the astrophysical p-process using in-beam γ-ray spectroscopy”

18:55 -- 19:25  L. Trache  “Nuclear astrophysics at ELI-NP

FRIDAY, March 14

Chairperson  T. Motobayashi

08:30 -- 09:15  J. Stone  “High Density Matter in Neutron Stars and Supernovae”

09:15 -- 10:00  M. Hempel  “The nuclear equation of state in core-collapse supernovae”

10:00 -- 10:20  Coffee break

10:20 -- 11:05  T. Fischer  “Neutrino properties: consequences for the r-process”

11:05 -- 11:50  A. Aprahamian  “Nuclear Physics constraints for the r-process”

11:50 -- 16:00  Lunch / free time

Chairperson  L. Trache

16:00 -- 16:45  O. Korobkin  “r-process nucleosynthesis in neutron star mergers and associated macronovae events”

16:45 -- 17:30  M. Pignatari  “The intermediate neutron-capture process in stars, and its abundance signatures in presolar grains”

17:30 -- 17:55  Coffee break

17:55 -- 18:15  A. Aprahamian  “Some words about the Bethe Prize”

18:15 -- 19:00  A. Banu  “Hans Bethe and Twentieth-Century Physics”

19:00 -- 19:45  Summary/surprises & final discussion

19:45  Dinner & Farewell Party