



NA02-NUSPRASEN

NUclear **S**tructure **P**hysics, **R**eactions, **A**strophysics and **S**uperheavy **E**lements **N**etwork

NUSPRASEN Workshop on
Nuclear Reactions – Theory and Experiment
Warsaw (Poland), 22.-24. January 2018

Concluding remarks



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Nuclear **S**tructure **P**hysics, **R**eactions, **A**strophysics and **S**uperheavy **E**lements **N**etwork

NUSPRASEN is the physics network in ENSAR-2

- which organizes and supports workshops on
 - Nuclear structure
 - Nuclear reactions
 - Nuclear astrophysics
 - Superheavy elements
- which raises synergies of the ENSAR-2 work packages and the ENSAR-2 access facilities
- which coordinates the related activities and
- which disseminates its results



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Workshop on nuclear reactions

This NUSPRASEN workshop focused on **nuclear reactions** and related topics, such as **nuclear structure, dynamics, nuclear astrophysics, applications**

NLC (Warsaw and Cracow joint consortium) is one of the transnational access facilities in ENSAR-2. The present workshop enhances the information exchange among the ENSAR-2 partners and contribute to optimize the exploitation of their access facilities, in **theory and experiment**

Scientific Committee:

Angela Bonaccorso (INFN, Pisa, Italy)

Denis Lacroix (IPN Orsay, France) – Chair

Adam Maj (INP, Krakow, Poland)

Pawel Napiorkowski (HIL, Warsaw, Poland)

Krzysztof Rusek (HIL, Warsaw, Poland) – Co-Chair

Christoph Scheidenberger (GSI, Darmstadt, Germany) – Co-Chair

Livius Trache (NIPNE, Bucharest, Romania)

...and with excellent support by Justyna Samorajczyk-Pyśk

Workshop deliverable

A report of the present workshop will enter the mid-term report of NUSPRASEN, which is due in May 2018. The following topics will be addressed:

- Denis Lacroix: overview reaction theory
- Dolores Cortina-Gil: overview reaction experiments
- Joaquin Gomez-Camacho: “small” facilities – importance for the community, educational aspects, applications, industry cooperations; co-operation of different ENSAR2 activities (like NUSPRASEN and ENSAF)
- Livius Trache: nuclear reactions and their importance in nuclear astrophysics and vice versa
- Josef Pochodzalla: hypernuclei physics as an emerging field in our community
- ... more to add?

If you want to contribute to the report, inject certain points or add more considerations, please contact me or the persons assigned above – thanks!

euRORIB 2018

Giens, France

May 27th - June 1st

EURISOL

FAIR

GANIL

GSI

BOLDE

SPRC
small beams for science

IDEA
AL
International European
Accelerator Laboratory
for Advanced Research
at the European Union

Topics

*Future RIB facilities
Nuclear astrophysics
Transuranium nuclei
Fundamental interactions
Applications to other fields
Direct Reactions with radioactive beams
Nuclear structure far from stability and hypernuclei
Dynamics and Thermodynamics of exotic nuclear systems
At and beyond the dripline and new modes of radioactivity
Instrumentation, electronics and data acquisition systems
Production and manipulation of RIB*

International Advisory Committee

Nicolas Alamanos (Institute for Saclay)
Pablo Andreu (Thermonuclear SA)
José Benlliure (Univ. Santiago de Compostela)
Klaus Blaum (MPI-H Heidelberg)
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Riccardo Raabe (KU LEUVEN/SEC)

Local Organizing Committee

Marie-Louise Abovont (GANIL)
Marek Lewinowski (GANIL)
Saphie Raschke (GANIL)

ENSAR²



NUSPRASEN future events

The schedule up to end of project was outlined by the Steering Committee and looks as follows:

- **SPES “Workshop on Low-E. RIBs for fundamental symmetries”**, Feb. 1-2, 2018, Pisa (Italy)
- **15th Russbach school**, March 18-24, 2018, Russbach (Austria)
- **Carpathian Summer School of Physics 2018**, July 1-14, 2018, Sinaia, Romania
- **EURISOL Town Meeting**, July 2-4, 2018, Pisa (Italy)
- **WS on Explosive Nucleosynthesis**, Debrecen, Hungary; Sept. 2018
- **WS on current and future experiments at GANIL**, Caen, France, Oct. 8-12, 2018
- **ECT* “Workshop on Indirect Methods in Nuclear Astrophysics”**, Nov.2018
- **16th Russbach school** in 2019 (date: t.b.fixed)
- **WS Superheavy elements**, tentative date: March 2019)
- **WS “Cross-combining elements (theory, instrumentation, computing, applications,...)”**
(place t.b.d., date: early 2019)
- **WS “New avenues in nuclear physics: ways forward”** (place&date: t.b.d.)
- **WS on “New science opportunities at ELI-NP”**, Bucharest, early 2019
- **St. Tecla school 2019** (date: t.b.fixed)



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Thank you to

- the Scientific Committee
- all speakers
- the local team!



NUSPRASEN

Steering Committee

The NUSPRASEN Steering Committee has been set up, it is composed of the following members:

A. Bonaccorso (U.Pisa, Italy)

M. Borge (CSIC-Madrid, Spain)

P. Dendooven (KVI-CART, The Netherlands)

Z. Fulop (Atomki, Hungary)

R. Herzberg (U.Liverpool, UK)

A. Jokinen (U.Jyväskylä, Finland)

D. Lacroix (IPN-Orsay, France)

S. Lenzi (U.Padova, Italy)

A. Maj (U.Cracow, Poland)

C. Scheidenberger (GSI, Germany)

L. Trache (IFIN-HH, Romania)