

WORKSHOP PROGRAMME

Monday 09.04.2018

9:30 – 10:15 *Registration at the Conference Desk*

10:15 – 10:45 **Welcome address** **Emanuele Vardaci**

10:45 – 11:00 COFFEE BREAK

Session 1: Super-Heavy Elements Fission Decay (Chair: S. Hofmann)

11:00 – 11:50 **Yuri Oganessian** *Fission of heaviest nuclei*

11:50 – 12:40 **Nicolae Carjan** *Predictions of Fission Fragment Mass Distributions
for Super-Heavy Elements*

12:40 – 14:30 LUNCH

Session 2: Super-Heavy Decay (Chair: D. Poenaru)

14:30 – 15:20 **Peter Möller** *Spontaneous and Induced Fission of Very Heavy and
Super-Heavy Nuclei*

15:20 – 16:10 **Fritz P. Heßberger** *Spontaneous Fission Properties of Super-Heavy Nuclei*

16:10 – 16:30 COFFEE BREAK

16:30 – 17:20 **Roderick Clark** *Alpha Decay and Fission of High-K Isomers*

Tuesday 10.04.2018

Session 3: New Facilities 1 (Chair: K. Rykaczewski)

09:30 – 10:20 **Sergey Dmitriev** *SHE-FACTORY: A New Facility for Super-Heavy Element
Research*

10:20 – 11:10 **Mikhail Itkis** *Impact of quasifission on SHE production*

11:10 – 11:30 COFFEE BREAK

Session 4: Multi-nucleon Transfer (Chair: G. Ter Akopian)

11:30 – 12:20 **Alexander Karpov** *Production of neutron-rich heavy and super-heavy nuclei in
multinucleon transfer reactions*

12:20 – 13:10 **Guillaume Scamps** *Dynamical effects of superfluidity on multi-nucleon transfer,
fusion and fission*

13:10 – 14:30 LUNCH

Session 5: Reaction Mechanisms (Chair: E. Vardaci)

14:30 – 15:20 **Iulia Itkis** *Symmetric, asymmetric and super-asymmetric modes in
fission and quasifission of heavy and super-heavy nuclei*

Spontaneous and Induced Fission of very Heavy and Super-Heavy Nuclei

- 15:20 – 16:10 **Dario Vretenar** *Microscopic studies of fission dynamics based on energy density functionals*
- 16:10 – 16:30 **COFFEE BREAK**
- 16:30 – 17:20 **Piotr Magierski** *Time-dependent Density Functional Theory for nuclear reactions – advantages and disadvantages*

Wednesday 11.04.2018

Session 6: New Facilities 2 (Chair: M. Itkis)

- 09:30 – 10:20 **Michael Block** *Super-heavy Element Research at GSI*
- 10:20 – 11:10 **Sigurd Hofmann** *Fission Barriers of Super-Heavy Nuclei and Search for Element 120*
- 11:10 – 11:30 **COFFEE BREAK**

Session 7: New Facility 3 (Chair: S. Dmitriev)

- 11:30 – 12:20 **Gianfranco Prete** *The SPES project at the INFN- Laboratori Nazionali di Legnaro*
- 12:20 – 13:10 **Giacomo de Angelis** *Exotic nuclei and the SPES radioactive ion beam facility*
- 13:10 – 14:30 **LUNCH**

Session 8: Use of RIBs (Chair: M. Block)

- 14:30 – 15:20 **Krzysztof Rykaczewski** *Contributions to the science program at the SHE Factory and SPES*
- 15:20 – 16:10 **Gurgen Ter-Akopian** *Radioactive ion beams for the fission study of the heaviest neutron-rich nuclei*
- 16:10 – 16:30 **COFFEE BREAK**
- 16:30 – 17:20 **Greg Chubarian** *Secondary heavy ion beams as a tool for investigation of fusion mechanism*
- 20:00 Social Dinner

Thursday 12.04.2018

Session 9: More on Spontaneous Fission 1 (Chair: N. Carjan)

- 09:30 – 10:20 **Dorin Poenaru** *Theory of spontaneous fission of super heavy nuclei and its competitor decay modes*
- 10:20 – 11:10 **Christopher Zachary** *Spontaneous Fission of SHE: A New Source of Insights into the Structure of Neutron-Rich Nuclei*
- 11:10 – 11:30 **COFFEE BREAK**

Session 10: More on Spontaneous Fission 2 (Chair: P. Möller)

- 11:30 – 12:20 **Michal Kowal** *Fission hindrance of heaviest high-K isomers*

Spontaneous and Induced Fission of very Heavy and Super-Heavy Nuclei

12:20 – 13:10 Janusz Skalski *From instantons to spontaneous fission rates*

13:10 – 14:30 LUNCH

Session 11: More on Spontaneous Fission 3 (Chair: A. Karpov)

14:30 – 15:20 Wojciech Brodziński *An instanton-motivated approach to the spontaneous fission of odd nuclei*

15:20 – 16:10 Ion Silisteanu *Half-lives of nuclei around the super-heavy nucleus $^{304}120$*

16:10 – 16:30 COFFEE BREAK

16:30 – 17:20 David Regnier *Probing the evolution of the fission modes with a microscopic approach*

Friday 13.04.2018

Session 12: Cluster Radioactivity (Chair: D. Poenaru)

09:30 – 10:20 Michal Warda *Correspondence between cluster radioactivity of and asymmetric fission of super-heavy nuclei*

10:20 – 11:10 Zachary Matheson *Cluster emission in ^{294}Og*

11:10 – 11:30 COFFEE BREAK

11:30 – 12:30 Concluding Remarks

12:30 LUNCH