French-Czech « Barrande» Nuclear Research Workshop
- Advancing Science through Bilateral Collaborations -

Organized by: Academy of Sciences, ČVUT, CENEN, the French Embassy in Czech Republic and GANIL

April 25th-26th, 2019

Honfleur, Normandy, France

Main program

Wednesday, April 24th, 2019
By 17:15 Transport from CDG to Honfleur (charter bus)
19:30 Dinner in M Hotel, Honfleur

Thursday, April 25th, 2019
09:00-12:00 Presentations by Czech and French researchers of their teams and “hot topics” [15’ each]
12:30-14:00 Lunch
14:00 – 17:30 Transport & Visit of GANIL-SPIRAL2
17:30-19:30 Presentations by Czech and French researchers of their teams and “hot topics” [15’ each]
20:00 Poster Session & Diner

Friday, April 26th, 2019
09:00-12:00 Presentations by Czech and French researchers of their teams and “hot topics” [15’ each]
12:40-12:50 Closure
12:50 – 13:40 Lunch
13:40 Transport from M Hotel, Honfleur to CDG (charter bus)
Detailed program

Thursday, April 25th, 2019

**Introduction**

*Chairperson: Marek Lewitowicz*

9:00  **Welcome** (organizers)

9:10  **Status of the GANIL-SPIRAL2 facility**

Navin Alahari (GANIL)

**Topic: Fundamental research**

*Chairperson: Marek Lewitowicz*

9:30  **Czech participation in the LSM underground laboratory**

Rastislav Hodak (IEAP, CTU in Prague)

9:50  **Study of Exotic Nuclei at LISE**

Olivier Sorlin (GANIL)

10:10  **Time resolved laser induced fluorescence spectroscopy at Faculty of Nuclear Sciences and Physical Engineering**

Alena Zavadilova (FNSPE, CTU Prague)

10:30  **Coffee break**

**Topic: Nuclear Instrumentation**

*Chairperson: Jana Jiřičková*

10:50  **The measurement of the shaft torque and its impacts in operational cases**

Jindřich Liška (University of West Bohemia, Pilsen)

11:10  **Vibration monitoring system as a platform for the steam turbine diagnostics**

Ales Krutina (Jablotrongroup)

**Topic: Nuclear analytical methods for material science**

*Chairperson: François de Oliveira*

11:30  **Ion-induced chemistry in molecular clusters**

Bernd Huber (CIMAP)

11:50  **Interaction of Iron pentacarbonyl with multiply charged ions**

Pamir Nag (J. Heyrovský Institute of Physical Chemistry)
12:10  Corrosion resistance of steel used for spent nuclear fuel storage  
Ondrej Chocholaty (University of West Bohemia)

12:30  Lunch

14:00 – 17:30 Transport & Visit of GANIL-SPIRAL2

**Topic: Medical applications of nuclear science (Radiobiology, Radioisotopes, hadrontherapy)**

*Chairperson: Vincent Breton*

17:50  **Challenges in the medical radionuclides production**  
Ondrej Lebeda (NPI of CAS)

18:10  **R&D for the production of innovative radioelements at GANIL: synergies between Czech Republic and France**  
Gilles de France (GANIL)

18:30  **Overview over newly developed extraction chromatographic resins and their application in the production and quality control of radioisotopes for diagnosis and therapy**  
Steffen Happel (TrisKem Int.)

**Topic: Radioactivity and its biological effects**

*Chairperson: Vincent Breton*

18:50  **Novel approach in the synthesis of diglycolamides**  
Katerina Fialova (Faculty of Nuclear Sciences and Physical Engineering, CTU, Prague)

19:10  **In-vitro comparison of alpha and beta therapeutic radionuclides’ impact on tissue and tumour cell lines**  
Lukas Ondrak (Faculty of Nuclear Sciences and Physical Engineering, CTU, Prague)

19:30  **Dosimetry in preclinical radiotherapy**  
Anne-Marie Frelin (GANIL)

20:00  **Poster Session & Dinner**
Friday, April 26th, 2019

**Topic: Fundamental research (nuclear astrophysics)**

*Chairperson: Mathieu Wellhoff*

- **9:00** Project SPIRAL2-CZ and nuclear astrophysics  
  Jaromir Mrazek (NPI of CAS)

- **9:20** Nuclear Astrophysics at GANIL  
  François de Oliveira (GANIL)

- **9:40** New measurements and alternative methods for stellar reaction rates studies  
  Beyhan Bastin (GANIL)

**Topic: Nuclear technologies**

*Chairperson: Thomas Ducasse*

- **10:00** The Neutrons for Science Facility at SPIRAL2  
  Xavier Ledoux (GANIL)

- **10:20** Laboratory of Fast Neutron Generators at NPI Řež  
  Martin Ansorge (NPI Řež)

- **10:40** Czech – French Cooperation on the ALEGRO project  
  Ladislav Belovsky (UJV Rez)

- **11:00** Influence of radioactivity on microorganisms living in mineral springs  
  Aude Beauger (GEOLAB)

- **11:20** Coffee break

- **11:40** Burnable absorbers  
  Radek Škoda (ZČU FEL)

- **12:00** Analysis of cooling system for Nuclear Spent fuel cask  
  Michal Volf (University of West Bohemia in Pilsen)

- **12:20** – 12:30 Closure (Organisers)

- **12:30** Lunch

By 13:30 Transport from M Hotel, Honfleur to CDG (charter bus)