

French-Czech «Barrande»  
Nuclear Research Workshop



## 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 25<sup>th</sup>-26<sup>th</sup>, 2019**

**Honfleur, Normandy, France**

### *Main program*

Wednesday, April 24<sup>th</sup>, 2019

By 17:15 Transport from CDG to Honfleur (charter bus)

19:30 Dinner in M Hotel, Honfleur

Thursday, April 25<sup>th</sup>, 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 26<sup>th</sup>, 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)



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## Detailed program

Thursday, April 25<sup>th</sup>, 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 Jiříčková*

- 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 Chocholatý (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 & Diner*





Friday, April 26<sup>th</sup>, 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)**

