



DEVELOPMENT OF INNOVATIVE INSTRUMENTS & DIAGNOSTIC STRATEGIES IN HERITAGE SCIENCE

4th – 7th July 2017

Centre de Recherche et de Restauration des Musées de France (C2RMF), Paris, France

This France IPERION-CH Doctoral Summer School (FID2S) will provide advanced lectures focused on research activities dedicated to the development of innovative instruments and diagnostic strategies to enhance both scientific investigation and conservation strategies of cultural heritage materials.

The lectures will be an opportunity to share information with international experts in the field of **Heritage Science** about recent advances regarding analysis performed with new portable techniques, large-scale facilities like neutron and synchrotron facilities or ion accelerators and the development of conservation protocols for museum collections or historical monuments.

The lectures are designed to offer the most in a very concentrated form by providing participants the opportunity to discuss and exchange ideas with scientific researchers and professional staff in the field of cultural heritage. It is also a valuable opportunity to network with participants from other countries and institutions

The Doctoral Summer School is organized by the **Centre de Recherche et de Restauration des Musées de France (C2RMF)**, an institution of the French Ministry for Culture devoted to the analysis and conservation of the cultural heritage of the French Museums, in collaboration with other research units belonging to the IPERION-CH French Node via the CNRS (Centre National de la Recherche Scientifique) partner.

Centre de Recherche sur la Conservation des Collections (CRCC)

Laboratoire de Recherche des Monuments Historiques (LRMH)

Institut Photonique d'Analyse Non-destructive Européen des Matériaux Anciens (IPANEMA)

The lectures will be held at the C2RMF, located inside the Louvre palace, at the heart of Paris. **Visits to cultural heritage institutions** in the Paris area will also be organized, including Le Louvre museum, Soleil Synchrotron facility, and the Conservation department of the Institut National du Patrimoine (INP).

Who should attend ?

The France IPERION-CH Doctoral Summer School will be of interest for Master and PhD students, post-doctoral students, conservators, curators and scientists working in the fields of cultural heritage conservation and heritage science.

FID2S is also aimed at potential users of the IPERION-CH trans-national access (TNA) programs. The School will show the results achieved by two of the TNA programmes: access to mobile laboratories and access to large-scale facilities as well as work carried out within the framework of joint research activities (JRA).

Due to the small number of participants, the school will encourage an intensive interaction with the lecturers. Participants must be motivated to actively participate and must be available for the whole duration of the Summer School.

All sessions will be conducted in **English** and therefore fluency in written and spoken English is essential. A certificate of attendance will be provided by IPERION-CH to all participants which can be converted into ECTS if accepted by their doctoral school.





Preliminary Programme

Trans-National Access activities: Mobile instrumentation

- Terahertz time-domain imaging for cultural heritage
Dr David Giovannacci, LRMH (France)
- XRD-XRF portable technique for cultural heritage materials analysis
Dr François Mirambet, C2RMF (France) and Pr Gilles Wallez, IRCP-CNRS (France)
- Hyperspectral imaging
Dr Aurélie Tournié, CRC-CNRS (France)
- Molab interventions in the IPERION CH European project
Dr Elsa Bourguignon, C2RMF-CNRS (France)
- Digital Speckle Holographic Pattern Interferometry
Dr Vivi Tornari, FORTH (Greece)

Trans-National Access activities: Large-scale infrastructure

- Synchrotron Facilities (UV-Vis techniques)
Dr Mathieu Thoury IPANEMA-CNRS (France)
- Ion Beam Analysis: radiation damage mitigation and multi-scale 3D positioning system
Dr Thomas Calligaro and Dr Claire Pacheco, C2RMF (France)
- Neutron-source analysis
Dr László Szentmiklósi, BNC-WIGNER (Hungary) (to be confirmed)

Research activities

- Advanced diagnostic techniques for efficient monitoring of deterioration and conservation treatments on metallic heritage
Dr Emilio Cano, CENIM-CSIC (Spain)
- Development of a mobile LIBS-LIF-Raman instrumentation
Dr Vincent Detalle, C2RMF (France)
- Data management
Dr Joseph Padfield, National Gallery (United Kingdom)
- Mobile techniques versus non-mobile techniques: limits, complementarity and improvement
Dr Francesca Rossi, CNR (Italy)
- Advanced strategies for diagnostics during conservation treatment of CH objects
Pr Rocco Mazzeo, University of Bologna (Italy)
- Ultrasonic (acoustic) and spectroscopic mapping micro-tomography of cultural heritage objects
Georgios Karagiannis, Idryma Ormylia Art Diagnosis Center (Greece)

Other lecturers to be confirmed

Anne-Solenn Le Hô, C2RMF (France)



Venue of FID2S



The venue of the France IPERION-CH Doctoral Summer School will be the **Centre de Recherche et de Restauration des Musées de France** which is located in the center of the city of Paris within the footprint of Le Louvre museum.

The main lecture hall will be at the **Carrousel laboratory**, a modern and spectacular underground building located under the Tuileries garden.



Paris can be easily reached by car, train, via one of seven Paris railway stations, and plane, via two international airports, Orly airport and Charles-de-Gaulle airport. Both international airports are well-connected to Paris by public transportation.

Student accommodation addresses will be provided on demand.

Schedule

Lectures start on Tuesday July 4th, 2017 at 10:00 in the morning and end on Friday July 7th, 2017 at 16:00 in the afternoon.

Doctoral Summer School Fees

The costs of travel and accommodation will need to be met by the participants. Registration fees include a copy of all lectures, visits, coffees and lunches.

The early FID2S registration fees are 250€ (registration before May 1st, 2017), the late registration fees are 320€ (registration after May 1st, 2017).

Registration

Registration is limited to **25 participants**. Attendees will be selected by the FID2S organizing committee from the candidate pool based on merits, background and other criteria. Early applications will be given priority.

To apply to the FID2S, please complete the attached registration form, and send it along with a short CV and a motivation letter to the contact e-mail below.

Contact

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Scientific committee

Pr Rocco Mazzeo, Pr Silvia Prati, Dr Michel Menu, Dr Véronique Rouchon, Dr Aline Magnien, Dr. Elsa Marguin, Dr François Mirambet, Dr Vincent Detalle

Organising committee

Dr François Mirambet, Dr Elsa Bourguignon, Maria Bestard, Sophie Lefèvre, Vanessa Fournier





2nd IPERION CH Doctoral Summer School

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Registration Form

Please return the completed form along with a short CV and a motivation letter to francois.mirambet@culture.gouv.fr.

Personal data

Title:

First / Given Name:

Last / Family Name:

Date of birth (day/month/year):

Male / Female:

Nationality:

Corresponding address:

Email address:

Phone number:

Current studies

University name:

Department / School:

University address:

Research area(s)

Year of study:

Thesis advisor (if relevant):

Educational background

For each diploma, provide Subject/Title, University, Grade/Mark and Date of graduation

Undergraduate studies (Bachelor):

Graduate studies (Master, PhD):