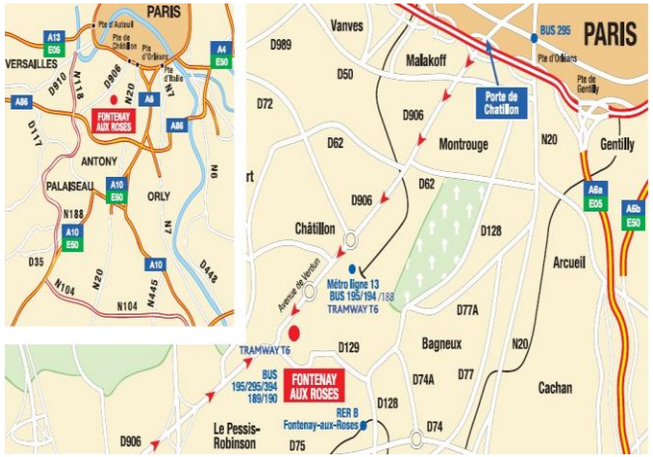
Venue

IRSN, Bâtiment 33
12 rue de la redoute
Fontenay-Aux-Roses (close to Paris)
France

- **By metro** Line 13
  station Châtillon/Montrouge then
  Tramway T6 stop Division Leclerc

- **By train** RER B (Charles de Gaulle/Robinson)
  station Fontenay-Aux-Roses then
  Bus 394 stop Division Leclerc



IRSN, Bâtiment 33
Noak/Le bar Floréal/Médiathèque IRSN

Further information
&
Registration

dosicourse@irsn.fr
http://www.concert-h2020.eu/

Organizing committee

Sophie Ancelet (IRSN, France, Chair)
Liz Ainsbury (PHE, UK)
Clemens Woda (HMGU/EURADOS, Germany)
Augusto Giussani (BfS, Germany)

IRSN
INSTITUT DE RADIOPROTECTION ET DE SÛRETÉ NUCLÉAIRE

EURADOS

HelmholtzZentrum münchen
Deutsches Forschungszentrum für Gesundheit und Umwelt

Bundesamt für Strahlenschutz

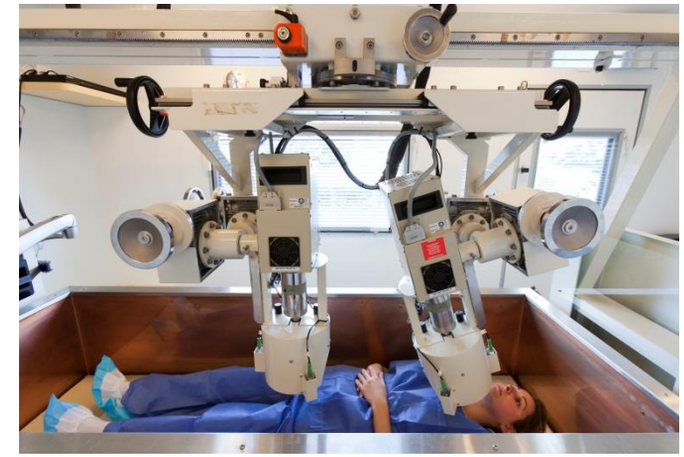
Public Health England

This course is funded by the European Joint Programme for the Integration of Radiation Protection Research (CONCERT) 2018 Education & Training call

EUROPEAN JOINT PROGRAMME FOR THE INTEGRATION OF RADIATION PROTECTION RESEARCH
CONCERT

Uncertainty in biological, physical and internal dosimetry following a single exposure

April 15-19, 2019
IRSN, Paris, France



Anthroporadiometric measurements
Photo: Noak/Le bar Floréal/Médiathèque IRSN

IRSN
INSTITUT DE RADIOPROTECTION ET DE SÛRETÉ NUCLÉAIRE
Faire avancer la sûreté nucléaire

Organized in the framework of EURADOS, this course will cover standard and advanced methods (based on mathematical, probabilistic and statistical concepts) used to identify, characterize, describe/model and assess the major sources of uncertainty related to the estimation of doses in biological, physical and internal retrospective dosimetry following a single exposure to ionizing radiation.

Lecturers

- Sophie Ancelet, Mohamedamine Benadjaoud, Gaetan Gruel, David Broggio, Eric Blanchardon, Estelle Davesne, François Trompier, Guillaume Manificat, Laurence Roy **(IRSN)**
- Augusto Giussani **(BfS)**
- Demetrio Gregoratto **(PHE)**
- Pedro Puig, Joan Francesco Barquinero **(UAB)**

Course open to

- **Mainly MSc/PhD students and other young scientists** who need a strong grounding in uncertainty analysis techniques for retrospective dosimetry.
- Later career professionals, who want to deepen their knowledge in this field.

Electron Paramagnetic Resonance (EPR) spectroscopy
Photo: FrancescoAcerbisl/Médiathèque IRSN

Topics

- Dose estimation in biological, physical and internal dosimetry following a single exposure
  - ***State of the art***
- Dealing with uncertainty: basic probabilistic and statistical tools
  - ***Practical session***
- Introduction to R language for statistical computing in radiation dosimetry
  - ***Practical session***
- GUM methods for retrospective dosimetry
  - ***Practical session***
- The bootstrap approach for uncertainty assessment in retrospective dosimetry
  - ***Practical session***
- Advanced methods for uncertainty propagation in internal dosimetry
  - ***Practical session***
- Bayesian approach for retrospective dosimetry
  - ***Practical sessions***
- ISO approach to account for uncertainty in internal dosimetry
- Overview of the limit of detection issue
- An advanced method to deal with heterogeneous exposures in biological retrospective dosimetry
- Factors affecting *in vivo* activity measurements

All practical sessions will be based on real case studies in biological, physical and internal retrospective dosimetry

Information for applicants

People wishing to apply should submit at

dosicourse@irsn.fr :

- A letter of application
- A CV describing the scientific career
- A supporting letter from the supervisor (only for PhD students)

Deadline for applications: **February 15th 2019**

Max number: **20 participants**

There is **no course fee**.

A **limited financial support** will be available to cover accommodation and breakfast for **10 students** for 5 nights.

Preference will be given to students from Eastern and Southern European countries.

Photo: Olivier Seignette/Mikaël Lafontan/Médiathèque IRSN