



URSI-France Workshop

Approaching both infinities through electromagnetic waves

March 26-27, 2019

Observatoire de Versailles Saint-Quentin-en-Yvelines

1ST CALL FOR PAPERS

The URSI-France 2019 Workshop, under the sponsorship of the *Académie des sciences*, will be dedicated to “**Approaching the two infinities through electromagnetic waves**”. The workshop will be held at *Observatoire de Versailles Saint-Quentin-en-Yvelines* (OVSQ), located in Guyancourt near Paris, March 26th and 27th, 2019.

The workshop will also be the opportunity to celebrate the 100th anniversary of the **International Scientific Unions** (IAU, IUPAC, UGGI and URSI).

Electromagnetic waves, through their wide range of wavelengths, constitute a **privileged means for exploring the two infinities**: the infinitely great that **concerns the large structures of our universe** as well as the infinitesimal that **concerns the fundamental bricks of which this same universe seems to be made**. Beyond the multi-scale aspect of the proposed theme, there will be the question of energetic limitations of exploration means, detection, measurement and imaging capabilities, but also that of computing means allowing us to better understand and master all these phenomena. The observation of the complexity of the living world will also have its place.

The workshop will be organized around **oral and poster sessions**. Most sessions will be introduced by **invited speakers**, presenting the state of the art and / or recent developments, followed by **talks** that have been selected by the Scientific Committee. The working languages will be French and English.

Main topics:

- Propagation at large and very large distances, space observation, radio telescopes;
- Role of optics and EM waves in the detection of ultra-weak signals, application to gravitational waves;
- Exploration by very low frequencies, terahertz waves, ultra-fast pulses;
- Phenomena related to waves in plasmas, RF waves and microwave probing, application to fusion plasmas;
- Subwavelength imaging, microscopic imaging of the living and the cell;
- Electromagnetic manipulation of quantum states, quantum computer;
- Multiscale physics, hybrid methods.

ORGANISATION

The Workshop will be held at the *Observatoire de Versailles Saint-Quentin-en-Yvelines* (OVSQ) in Guyancourt (78) (<http://www.ovsq.uvsq.fr/>), on **Tuesday 26 and Wednesday 27, March 2019**. It will include on Wednesday, March 27th the **URSI-France General Assembly**.

Scientific Committee: Patrick GALOPEAU, LATMOS, France (Chair)

Joseph ACHKAR, Observatoire de Paris, Meudon ; Sébastien CELESTIN, LPC2E, Orléans ; Jacques CLAVERIE, IETR, Saint-Cyr Coëtquidan ; Monique DECHAMBRE, LATMOS, Guyancourt ; Frédérique DE FORNEL, ICB, Dijon ; Fabrice HERPIN, LAB, Bordeaux ; Karl-Ludwig KLEIN, Observatoire de Paris ; Cyril LUPI, GEM, Nantes ; Lluís MIR, Gustave Roussy, Villejuif ; Roland SABOT, CEA Cadarache ; Alain SIBILLE, Télécom ParisTech

Organizing Committee: Jean-Benoît AGNANI, ANFR, France (Chair)

Patrick GALOPEAU, LATMOS, Guyancourt ; Joël HAMELIN, URSI-France ; Alain SIBILLE, Télécom ParisTech ; Hervé SIZUN, URSI-France

CNFRS/URSI-FRANCE MEDAL AND RADIOSCIENCES PHD AWARD

The workshop will be the opportunity to remit the **annual URSI-France Medal**, as well as the 2019 **Radiosciences PhD Award** under the aegis of URSI and URSI-France.

EUROPEAN YOUNG SCIENTIST GRANT

A **Young scientific grant** of **300 euros** and a **free registration** will be awarded to the principal author and presenter of the best article, if he is under 35 and affiliated to a European laboratory other than French.

PUBLICATION

The texts of the communications will be grouped together in proceedings, an electronic version of which will be available on the web site of URSI-France (<http://ursi-france.org>)

A selection of papers will be proposed for publication, either in a **special issue of the Comptes rendus Physique de l'Académie des sciences** or in the **Revue de l'électricité et de l'électronique** (REE).

INSTRUCTIONS FOR AUTHORS

Proposals for papers should be submitted online via the dedicated website: <https://ursifr-2019.sciencesconf.org/>, in the form of a **clear and concise text of one to two pages**, with sufficient content to allow their scientific evaluation. Microsoft WORD, OpenOffice and LaTeX Templates (text, presentation and poster) will be available on the workshop web site and on the URSI-France website.

IMPORTANT DATES

January 11th, 2019: **Deadline for submission of abstracts**
January 29th, 2019: Notification to authors of acceptance by the Scientific Committee.
February 22nd, 2019: **Deadline for full text submission**
March 4th, 2019: Notification of the final acceptance of the full paper
March 26th-27th, 2019: **Workshop**

FURTHER INFORMATION

All relevant information about the 2019 Workshop is available on the URSI-France website: <http://ursi-france.org>.

For, in fact, what is man in nature? A Nothing in comparison with the Infinite, an All in comparison with the Nothing, a mean between nothing and everything. Since he is infinitely removed from comprehending the extremes, the end of things and their beginning are hopelessly hidden from him in an impenetrable secret; he is equally incapable of seeing the Nothing from which he was made, and the Infinite in which he is swallowed up.

Pascal, the Pensées, 1670

