

SKA-France

Monthly bulletin

January 2019

SKA-France

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News from Maison SKA-France

New Director of Industrial Relations at CNRS/INSU

Since January 2019, Laurent Jammes is Director of Industrial Relations at CNRS/INSU, and Industry Liaison officer for France at ESO. In this position, Laurent strives to promote the technological solutions developed by the French industry for the benefit of the SKA project.

Laurent has an Engineering degree from Ecole Centrale de Paris, a PhD in nuclear physics and a Master's degree in Psychology. He first worked for 23 years with Schlumberger, a multinational service company of the Oil&Gas sector, in various R&D positions in France and China. His last position was Marketing & Technique director for Carbon Services, the business unit in charge of developing CCS technology and business. In 2011, Laurent left Schlumberger, to develop a consulting business in the field of energy transition and sustainable development, through Actys-BEE, a company he co-founded, and as Senior Advisor for ENEA Consulting. He developed an expertise in new energy technologies for the energy transition (renewable energies, hydrogen, energy storage, geothermal energy) and still conducts research on the social aspects of the deployment conditions of these technologies.

Laurent is a member of several evaluation committees for research programs on "safe, clean and efficient energy" (France), "CO2 Storage" (EU, Norway, Germany) and Eurostar. He has given many short training courses and lectures to utilities, Oil & Gas companies and governmental agencies. He currently teaches at the GREEN Master at the University of Caen Basse-Normandie (Energy & Society) and at the CIFE European Master on Energy. Laurent is also a member of SPE (Society of Petroleum Engineers) and Evolen (Entrepreneurs and Professionals from Oil&Gas Energy Futures).

We all warmly welcome Laurent in the SKA-France team!



L. Jammes
(CNRS/INSU)



SKA design and governance steps forward

Important steps forward have been taken in the last weeks in the design and governance of the future SKA Observatory.

On the engineering side, the international Signal and Data Transport (SaDT) consortium has concluded its work to design the system that will transport unprecedented amounts of data over vast distances, while ensuring that signals are synchronised in a way that enables the arrays to operate together like a single telescope.

On the governance side, the end of the month saw the announcement that the SKA Convention signature will take place at a ceremony to be held in Rome, Italy on 12th March. Just after, The Netherlands announced it will sign the Convention and also confirmed an initial commitment of €30 million to the future SKA Observatory.

Activities

French contribution to 2019 SKAO calendar



For the 2019 edition, the Communications and Outreach team of the SKA Organisation has produced a “public outreach & education” themed calendar, where, for each month, particular public outreach events from each of the 12 member country of SKAO have been highlighted.

Cover and April pages of the 2019 SKAO calendar (Image courtesy: SKAO)



SKA-France has contributed and some French activities are illustrated at the April page of the calendar, which is [available on-line](#).

Critical Design Review of the SDP consortium

The Science Data Processor (SDP) Critical Design Review took place at the SKA Headquarters (Jodrell Bank, UK) on January 15-18, 2019. Reviewers, observers and members of the consortium had intensive and productive presentations and discussions concerning the future SKA software and hardware architecture, the prototyping work that has been undertaken in support of the architecture, and the associated system engineering (SE) and programmatic aspects.

C. Perez (INRIA) and C. Tasse (Paris Observatory) participated as observers to the SDP CDR meeting. More detailed information about the meeting and its outcome will be available soon at the SKA website and in the next SKA-France bulletins. For interested readers, the documentation illustrating this work is available at the [SDP web-page](#).

SKA at the IRAM-France meeting

Since its founding in 1979, IRAM has been bringing together the (sub-)millimetre community and has provided France with exceptional instruments for observing the cold Universe. Over the past 10 years, the capacity of the 30m telescope and the Plateau de Bure interferometer (now NOEMA) have increased tenfold. Ongoing instrumental developments will significantly increase their capabilities in the coming years. A one-day workshop was organised by IRAM-France in Paris on January 31, 2019, to present the current capabilities of its two observatories and future developments. The objective was to discuss ambitious French observational programs to make the most of these new capabilities and to take full advantage of the investments made.

Among standard presentations, the program included flash-talks of 5 minutes to make an original contribution to the discussions and, among others, point out synergies with other projects. C. Ferrari (SKA-France Director) was invited to give an overview of SKA-IRAM possible joint researches: 5 intense minutes to show how to change our view of the Universe observing the sky from sub-millimetre to metre wavelengths!

Announcements

SKA History Conference

3-5 April 2019, SKA Headquarters, Jodrell Bank, UK

The meeting will be focused on the History of the SKA from the 1980s to 2012. This period covers the time from early ideas about a large radio telescope up to the SKA site decision made by the newly established SKA Organisation. This period of SKA history is the subject of a book in preparation by Richard Schilizzi, Ron Ekers, and Peter Hall.

The program has two main components:

1. **invited presentations** on various themes (science, engineering, international collaboration, project politics and funding, site selection, industry engagement, and mega-science);
2. **discussions**, taking up about a third of the meeting, on topics that range over the various themes, and also reflect on the SKA as a mega-science project.

We expect the discussion periods will provide participants with an opportunity to contribute to the meeting in an informal way that encourages cross-fertilisation of ideas and insights about the history of the SKA, and increases our collective understanding of the development of the SKA and mega-science projects in general.

Conference website: <https://indico.skatelescope.org/event/518/>

Next important dates before the meeting:

- * Third Announcement: 22nd February 2019
- * Cranage Hotel Room Booking (with discount) deadline: 20th February 2019

Multi-messenger astronomy with SKA precursors and pathfinders, a capacity building workshop

13-15 May 2019, Aveiro, Portugal

The goal of the workshop is to bring together the scientific community working in different domains of astronomy, to show the potential of the multi-messenger astronomy with the existent radio facilities, in particular SKA precursors and pathfinders, and foster the interest in radio-related facilities in preparation to the advent of SKA.

In order to maximise the interaction between experts and the community, the meeting includes review talks, hands-on sessions (with focus on big data sets) and round tables. As a capacity building workshop, one of the goals is to promote the participation of young researchers, for which some funding is available to partially support travel expenses.

Conference website: <http://mmska2019.av.it.pt/>

Important dates before the meeting:

- * March 21, 2019: deadline for abstract submission and funding request
- * April 21, 2019: Final registration deadline

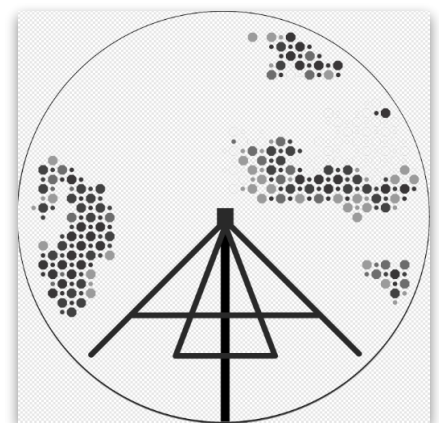
NenuFAR: call for proposals for Key Programmes

NenuFAR (New Extension in Nançay Upgrading LOFAR), a new radioastronomy instrument and a SKA pathfinder operating in the 10 - 85 MHz frequency band, is at an advanced stage of its construction at the Station de Radioastronomie in Nançay (France). At completion, the instrument will be composed of a compact core of 96 mini-arrays of 19 antennas each plus 6 distant mini-arrays. Four operating modes will be implemented: standalone beamformer, standalone imager, Transient Buffer mode, and LOFAR superstation (LSS).

The scientific questions that can be addressed with NenuFAR are very diverse: cosmology, pulsars, solar and stellar activity, lightning storms on solar system planets, exoplanets, transients, AGN, extragalactic diffuse emission, recombination lines... (for more information see the [project web-page](#)).

For the Early Science phase of the instrument, from July 2019 to December 2021, the **NenuFAR Scientific Committee** has issued a call for proposals for **Key Programmes**. The call is open to members of the French scientific community, and, by invitation, to international researchers.

For more information on this call, see [NenuFAR astronomers' page](#).



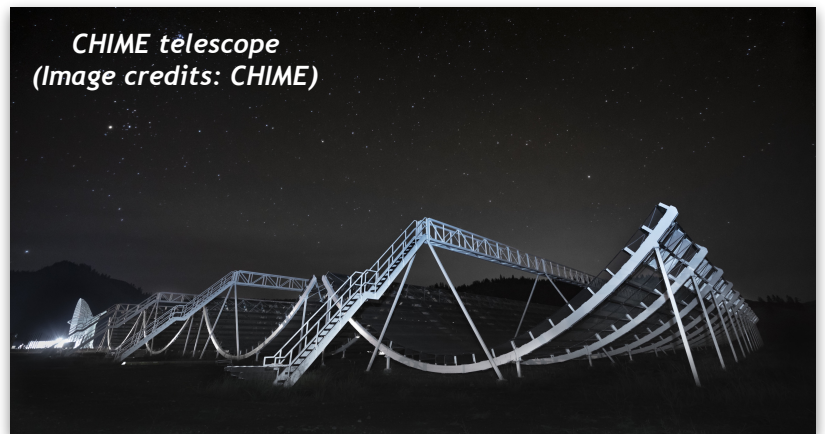
*NenuFAR logo
(Image credits: NenuFAR)*

Increasing interest towards Fast Radio Bursts after CHIME last discoveries

January started with the [announcement](#) that the SKA-pathfinder Canadian Hydrogen Intensity Mapping Experiment (CHIME) telescope has allowed to detect 13 fast radio bursts (FRB, see [SKA-France monthly bulletin of October 2018](#)) in only 3 weeks of initial operations. Among these sources, researchers discovered the second repeating FRB ever recorded.

This announcement has raised a lot of interest in the media all around the world, including in France, where several researchers have been interviewed in the last month. S. Corbel (Director of the Radioastronomy Station of Nançay, Professor at Paris Diderot University)

and F. Daigne (Deputy Director at Institut d'Astrophysique de Paris, Professor at Paris VI University and at École Polytechnique) have been hosts of [France Culture](#) (Radio France), while the video interview of C. Ferrari (SKA-France Director, Astronomer at Côte d'Azur Observatory) was published by the [University Côte d'Azur "Lab Stories"](#).



Chiara Ferrari
for the [Maison SKA-France](#)