

SKA-France

Monthly bulletin

April 2018

SKA-France

News from Maison SKA-France

Page 1

Activities

SKA-France – TANGO meeting
Meeting between SKA France and New Zealand SKA Alliance

Page 2

Announcements

SKA-France Day at LAM
Conference announcements
First scientific publication for MeerKAT

Page 2

News from Maison SKA-France

First meetings of the COPIL and Comité SKA-France

With the first meetings of its Board (*Comité de Pilotage - COPIL*) and Science and Technology Committee (*Comité SKA-France*), the Maison SKA-France (MSF) is now fully operational. The two meetings took place on April 4 and April 11, 2018, at CNRS Headquarters (Paris), respectively.

While the *COPIL*, chaired by its President, is responsible for the strategic coordination of the MSF, the *Comité SKA-France* is in charge of assisting the SKA-France Director in structuring the scientific and industrial French participation to the SKA project.

Members of the *COPIL*:

C. Catala (Observatoire de Paris), P. Crespi (Air Liquide), S. Cordova (Kalray), C. Delage (FEDD), J.-M. Denis (ATOS-Bull), R. Krawczyk (TAS), T. Lanz (Observatoire de la Côte d'Azur), G. Perrin (President, CNRS/INSU), G. Marquette (ILO SKA, CNRS/INSU), M. Pérault (French lead delegate at SKAO meetings, CNRS/INSU), J.-L. Pozzo (Université de Bordeaux), S. Rawson (Callisto), M. Tagger (Université d'Orléans) - **Permanent guest (without voting rights):** C. Ferrari (MSF Director)

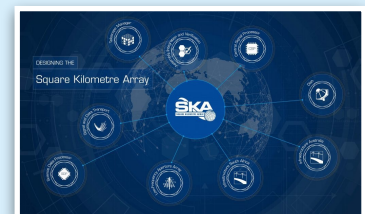
Members of the *Comité SKA-France*:

E. Baillot (Air Liquide), F. Casoli (Observatoire de Paris), P. Charlot (Université de Bordeaux), S. Corbel (CNRS/INSU), B. de Dinechin (Kalray), C. Delage (FEDD), A. Ferrari (Observatoire de la Côte d'Azur), C. Ferrari (MSF Director, Observatoire de la Côte d'Azur), R. Krawczyk (TAS), S. Rawson (Callisto), G. Theureau (Université d'Orléans), X. Vigouroux (ATOS-Bull) - **Permanent guest:** G. Marquette (ILO SKA)

Letter of support from CNIM

The SKA-France coordination received in April 2018 another very important [support letter](#).

[CNIM](#), a French equipment manufacturer and industrial contractor, has expressed its strong interest to study innovative solutions in the fields of dish production, cooling and energy provision for the SKA.



A new platform to follow SKA CDR progresses

SKAO has just launched an [interactive infographic](#) that highlights the progresses of the ongoing Critical Design Reviews (CDRs) of nine technical consortia (those that are in charge of the major elements of SKA1).

All CDRs are going to take place in 2018 and early 2019, with meetings between reviewers and consortia members taking place at the SKA Headquarters, and will be concluded by the System CDR, expected in 2019.

The interactive infographic is intended to inform the community about the progresses of these crucial steps toward the construction of SKA1. As more extensively explained on the [SKAO website](#), the new platform will grow with time, featuring a wide range of profiles, technologies, case studies, photos and videos.

Activities

SKA-France / TANGO meeting

The software toolkit [TANGO Controls](#), developed at [European Synchrotron Radiation Facility \(ESRF\)](#) in collaboration with several other scientific institutions in Europe, has been selected as the **control framework for the SKA**.

In this context, on **April 5, 2018**, the TANGO consortium coordination and SKA-France have organised a [joint meeting hosted by ESRF in Grenoble](#), to discuss the future TANGO-related activities and developments of interest for the SKA and radio astronomical applications.

The meeting, started with an overview of both TANGO (by J.-M. Chaize, TANGO Consortium Coordinator) and SKA-France (by C. Ferrari, MSF Director), included a presentation of the SKA Project Management by N. Rees (SKAO Head of Computing and Software) and a detailed view of the SKA Control System by L. Pivetta (SKAO Control System Software Specialist).

Participants from different research institutes (CNRS/INSU, IRAM, Synchrotron Soleil, Observatoire de Paris, Observatoire de la Côte d'Azur, ESRF) and private companies (Thales Services, Nexeya France, JYSE), already involved or interested in the SKA and/or TANGO, have finally illustrated their current or potential activities in the two projects. Possible ideas to develop further collaborations have been discussed.

The meeting ended with an exciting visit of the ESRF infrastructures.

Meeting between SKA France and New Zealand SKA Alliance



Some of the participants in the meeting between SKA-France and New Zealand SKA Alliance (CNRS Headquarters, April 13, 2018)

Following the fruitful discussions between SKA-France and NZ SKA Alliance representatives during the “New Zealand annual Computing for SKA” Colloquium (see the monthly bulletin issue of last February), Andrew Ensor (Director of NZ SKA Alliance) and Piers Harding (Senior Consultant, Catalyst IT) were invited by Maison SKA-France at **CNRS Headquarters in Paris on April 13, 2018**.

The main objective of the meeting was to mutually illustrate and discuss the current status of SKA computing and further current activities related to the optimisation of innovative algorithms for SKA data processing.

Announcements

SKA-France Day at LAM

16 May 2018, Marseille, France

The [Laboratoire d'Astrophysique de Marseille \(LAM\)](#), together with the CNRS and the support of competitiveness clusters [OPTITEC](#), [SCS](#) and [CapEnergies](#), is organising on **May 16, 2018**, an **information day on the SKA project**. The participation to the meeting is free, but registration is mandatory ([click here](#)).

Meeting website: <https://people.lam.fr/lagache.guilaine/SKA.html>

Astro-Informatics 2018 Marseille

25-28 June 2018, Marseille, France

Astronomy has always been a forerunner in data-related challenges. The major astronomical projects and instruments today will bring to the community a quantity of data that exceeds by several orders of magnitude what astronomers are used to deal with. Large surveys and observatories (SKA, EUCLID, GAIA ...) impose a different way of processing data through automated pipelines.

This CNRS thematic school will address the needs related to new methods, new use-cases and new data processing tools to be developed jointly by astrophysicists and computer specialists.

Workshop website: <https://astroinfo2018.sciencesconf.org>

YERAC 2018

4-6 September 2018, Dwingeloo, The Netherlands

The 48th Young European Radio Astronomers Conference (YERAC) will be hosted this year by JIVE and ASTRON, at their headquarters in Dwingeloo, the Netherlands.

The conference will bring together early-career scientists in the field of radio astronomy to present and discuss their research. It is aimed at PhD-level researchers, though more junior scientists or recent graduates will be considered in exceptional cases. The programme consists of mandatory talks by the participants. In addition, there will be daily scientific events and invited talks to highlight the activities of JIVE, ASTRON and NOVA. Several social events are scheduled as well. Participation in YERAC is by recommendation. Due to logistical limitations up to 35 participants can be hosted.

Workshop website: <http://www.jive.eu/yerac2018/index.php>

First scientific publication for the SKA precursor telescope MeerKAT

April 6, 2018 has been the publication date of the **first article reporting results coming from MeerKAT observations**. The paper, which appeared in *The Astrophysical Journal*, concerns the study of a reactivated magnetar, PSR J1622-4950.

Magnetars are neutron stars whose high-energy emission comes from the decay of their ultra-strong magnetic fields. Among the two dozens confirmed objects of this class, only four are known to emit radio pulses and, of these four, only PSR J1622-4950 has been discovered in the radio band. Another peculiarity of this source compared to the others: no X-ray pulsations could be detected at the moment of its discovery.

After a radio silent period started in 2014, resumed radio emission from this intriguing object was detected by the CSIRO single dish Parkes telescope in April 2017. More than 230 follow-up MeerKAT observations, repeated on 74 separate days from April 27 to October 3, 2017, have been essential to allow radio-derived ephemeris, enabling for the first time the detection of X-ray pulsations from this magnetar through precisely guided X-ray observations with the NASA satellites Chandra and NuSTAR. As described in details in the [paper published in The Astrophysical Journal](#), the combination of all these data provide important indications about the origin of radio emission in magnetars.



*Part of the 64 antennas that will constitute the MeerKAT telescope
(Credit: SARA0)*

Chiara Ferrari
for the Maison SKA-France