

SKA-France

Monthly bulletin

March 2018

SKA-France

News from Maison SKA-France

Page 1

Activities

H2020 AENEAS project
Participation to international meetings
SKA-France related internship

Page 2

Announcements

Conference announcements

Page 3

News from Maison SKA-France

Early Production Arrays meeting at SKA Headquarters

While the Critical Design Review (CDR) process is progressing towards the development of the construction proposal for SKA1, SKAO launched the organisation of the Early Production Arrays (EPAs). As described in the [last SKA Organisation Bulletin](#) (27th issue) by Joe McMullin (SKA Programme Director since early 2018, taking over this role from Alistair McPherson), the EPAs are “intended to be representative end-to-end systems based on the SKA reference design that results from the system CDR process”.

Current EPA plans include the construction of two small arrays, which will consist of a few elements of the future SKA1-LOW and SKA1-MID instruments, with the main aim of reducing critical risks associated with the planned rollout and verification of the telescope.

A first EPA workshop has been organised by SKAO from March 7 to March 9, 2018, at the SKA Headquarters. The purpose of the meeting was to identify a preliminary plan for EPAs to be presented to the next SKA Board of Directors.

In order to ensure a broad participation to the EPAs conception, representatives both from SKAO member and observer countries were invited to the meeting. France was represented by M. Pérault (CNRS/INSU, Observer for France at the SKA Board) and C. Ferrari (OCA, Directrice de la Maison SKA-France).

Observatoire de Paris formal associate member of the AADC consortium

After the favourable vote of the AADC consortium board of last October, the SKA Organisation has approved Observatoire de Paris as new associate member of the AADC Consortium. The Consortium Management and Organisation Agreement has been signed by C. Catala (President of Observatoire de Paris) on March 21, 2018.



First assembly of SKA prototype dish

One of the two final prototypes of SKA1-MID dishes that will be tested in the Early Production Arrays phase has been assembled and unveiled on February 6, 2018, during a ceremony at Shijiazhuang (China).

This prototype results from the joint effort of teams from China (design and production of the dish), Germany (design and manufacturing of the hardware and software used to move the dish) and Italy (design and production of the feed indexer).

The other countries involved in the SKA DISH consortium, including France, are working on the instrumentation and control systems for SKA1-MID, such as its receivers and signal digitisation system, as well as its software to monitor, coordinate and control the dish subsystems.

Activities

AENEAS meeting



Participants in the second All-hands AENEAS meeting at Nice Observatory

After the kick-off and first All-hands meetings of the H2020 project AENEAS “Advanced European Network of E-infrastructures for Astronomy with the SKA” (February 28 and March 1, 2017, Den Haag, The Netherlands; October 18 to October 20, 2017, Granada, Spain), the **second All-hands AENEAS meeting** was held at Observatoire de la Côte d’Azur in Nice (France) from March 26 to March 28, 2018.

The workshop included plenary sessions intended to provide an overall description of the project progress and plans, as well as parallel sessions for focused discussions within the different Work Packages of AENEAS. Very importantly, representatives from several SKA Science Working Groups were invited to provide feedback about the envisaged computing needs required by future users of the SKA Regional Centers (SRC).

The meeting saw a very good French participation, with M. Allen, F. Genova and Y. Stein from CDS, M. Caillat, F. Casoli and S. Corbel from Paris Observatory, C. Ferrari from OCA (host of the meeting), C. Perez, C. Raissi and E. Saillard from INRIA, J.-P. Vilotte from IPGP - CNRS/INSU.

The next All-hands meeting will be held in Bologna (Italy) in October 2018.

Participation in international meetings

Members of the SKA-France team participated in the “Superconducting Supercomputing with Josephson Junctions - S2J2” international conference in Avignon, France. On March 14, 2018, G. Marquette (CNRS/INSU, French SKA ILO) talked about the SKA at a round table concerning the ecological, economical and industrial challenges of Big Data. A more extensive description of the SKA project and its computing needs was presented on March 15, 2018 by F. Casoli (Observatoire de Paris, in charge of coordinating the Big Data and HPC activities within SKA-France).

C. Ferrari was invited as Chair of the AENEAS Board to a **joint SKAO-CERN meeting**, organised on March 19 and 20, 2018 in Geneva (Switzerland). The aim of the meeting was to discuss common challenges in exascale computing and data storage.

Internship in HPC and signal processing for the SKA



*Kick-off meeting of the Master Internship financed by Bull/ATOS
(Paris Observatory, March 15, 2018)*

As extensively described in previous SKA-France monthly bulletins ([December 2017](#) and [February 2018](#)), a group of researchers from different institutes, financially supported by the CNRS *Mission pour l'Interdisciplinarité*, is working in collaboration with Bull/ATOS on the development of an adequacy algorithm architecture approach to implement new imaging and calibration methods for the SKA.

In this framework, N. Monnier (INSA, Rennes) has just started a **6 months internship financed by Bull/ATOS** with collaborators both from research laboratories (GEPI, IETR, LERMA) and from private companies (Bull/ATOS and DDN). Under the joint supervision of J.-F. Nezan (INSA, Rennes) and E. Raffin (Bull/ATOS), the work of N. Monnier will be aimed to optimise the DDFacet code by C. Tasse (Observatoire de Paris) on computing infrastructures of the Bull/ATOS company.

Announcements

Second edition of the Transient Sky 2020 workshop

4-6 June 2018, Montpellier, France

The detection in August 2017 of gravitational wave and associated electromagnetic signals related to a neutron star-neutron star merger has created a very favorable context for the study of transient astrophysical sources. Associated multi-wavelength and multi-messenger observations are expected from new generation instruments (LSST, SKA, CTA, SVOM, LIGO-Virgo, IceCube, KM3NET, ...). The TS2020 workshops aim to federate the future French actors of transient sky astronomy, and to take the necessary actions for the development and coordination of this discipline at national level. After a first meeting in summer 2017, the second edition of TS2020 will mostly focus on the main methodological challenges of alerts.

Workshop website: <https://ts2020ll.sciencesconf.org/>

Scalable Data Analytics School

17-22 June 2018, Aussois, France

The recurring CNRS thematic school "*Masses de données distribuées*" will be dedicated this year to Scalable Data Analytics, focusing in particular on the following topics: How to conduct experiments - Data analytics - Systems, storage and indexing - Large scale data analytics algorithms.

Workshop website: <http://cedric.cnam.fr/summer-school/MDD2018/>

13th edition of ResCom School

18-22 June 2018, Porquerolles, France

The CNRS thematic school "*Apprentissage et fouille de données sur les réseaux*" is open to participants from academic institutes and private companies interested in developing their knowledge on Data Science, Network Science and Machine Learning.

Workshop website: <https://project.inria.fr/rescom2018/>

Chiara Ferrari
for the Maison SKA-France