SKA-France

Monthly bulletin July 2020

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33rd SKA Board Meeting

The 33rd meeting of the SKA Board of Directors was held on July 14, 2020. Due to the COVID-19 related situation, the SKA Board members and invited guests convened again by videoconference, even if the SKA Headquarters, after having been sanitised, have recently commenced a phased re-opening of the building, with staff being invited to return to the office on a voluntary basis.

In view of the first meeting of the IGO Council and of the beginning of SKA1 construction, the project keeps moving forward at full speed, with important progresses in key areas such as finance, construction and operation planning, and policy. Some of those developments are summarised below, and we refer to the Notes from the Chair (C. Cesarsky) for a more complete overview of the meeting.



Members of the SKA Board of Directors at the 33rd Board meeting, which was the second to be held by videoconference Image courtesy: SKAO



CERN/SKAO/GÉANT/PRACE Collaboration Agreement

July 22, 2020, saw the launch of a new collaboration agreement between four leading research organisations: CERN, SKAO, GÉANT and PRACE. E. Elsen (Director for Research and Computing at CERN), P. Diamond (SKA DG), E. Huizer (Chief Executive Officer of GÉANT) and P. Lavocat (PRACE Council Vice-Chair) signed the agreement in an online meeting.

This pioneer collaboration will work on challenges related to the use of high-performance computing to support large, data-intensive science projects, such as as the SKA and the High-Luminosity Large Hadron Collider (HL-LHC) at CERN. The four organisations are now planning a first joint event in the course of 2020. C. Ferrari, Director of Maison SKA-France, is one of the technical coordinators of this collaboration.

More information on the websites of SKAO, CERN, PRACE and GÉANT.



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During the DG's report, P. Diamond informed the Board about the participation of the SKA Organisation to the 2020 European Astronomical Society conference (EAS 2020), held from June 29 to July 3, 2020, with over 1700 participants who gathered on-line. The SKA was present at the meeting through a virtual booth and a presentation of the project by the SKA DG during a plenary session ("Square Kilometre Array: science, technology and status"). Together with F. di Vruno (SKA RFI & EMC Domain Specialist and Acting Spectrum Manager), T. Stevenson (SKA Head of Mission Assurance) and R. Braun (SKA Science Director), the findings of recent work by the SKA on satellite mega-constellations were also presented to the Board.

Following the report of **D. Luchetti** (Chair of Finance Committee), the Board noted that the **latest cash flow forecast of the SKA Organisation shows a healthy projected closing cash balance in December 2020**. For 2021 (year that will see the transition to the SKA Observatory, the construction preparation and the ramp-up of operations), the **Business Plan** was presented by **L. Ball** (SKA Director of Operations) and approved by the Board, following the recommandation of the Finance Committee.

The exposure drafts of two key documents were presented to the Board by, respectively, **J. McMullin** (SKA Programme Director and Deputy Director-General) and **L. Ball**: the **Construction Proposal** and the **Observatory Establishment and Delivery Plan**. Both documents will be submitted to the Board for endorsement and recommendation to the Council at the next Board meeting (September 2020).

Recent progresses in the definition of the SKA Regional Center (SRC) governance model were presented by P. Quinn (Chair of the SRC Steering Committee, SRCSC). P. Kelly (Chair of the Council Preparatory Task Force, CPTF) gave an update of the current CPTF priorities, including the ratification of the SKA Observatory convention, as well as funding, procurement and policies. A sufficient number of countries should have ratified by October 2020 (we recall that the Convention will enter into force once five countries will have ratified the text, including the three hosts, Australia, South Africa and the UK), allowing an inaugural SKA Observatory Council meeting in the fourth quarter of 2020.

Activities

SKA-France in international meetings

With the SKA project moving forward efficiently, July 2020 has seen the participation of SKA-France representatives in several meetings of international committees:

- * the SKA Regional Centre Steering Committee (SRCSC) met on July 2 and July 24 2020, to prepare and discuss the presentation of its view of the long-term operational partnership between the SKA Observatory and an ensemble of independently-resourced SKA Regional Centres to the SKA Board of Directors;
- * the monthly webinar of the African-European Radio Astronomy Platform (AERAP) was organised on July 2, 2020;
- * the European SKA Forum (ESKAF) agreed on the final version of its <u>Terms of Reference</u> during its meeting of July 10, 2020;
- the online meeting for the CERN/SKAO/GÉANT/PRACE Collaboration Agreement signature ceremony took place, as detailed above, on July 22, 2020;
- * the Council Preparatory Task Force (CPTF), tasked with bridging the SKA Observatory towards the first meeting of the SKA Council, met on July 29 and July 30, 2020.

Announcements

The SKA in two important community White Papers

July 2020 has seen the publication of two community White Papers related to big projects and world-wide collaborations that will make use, among other instruments, of the SKA.

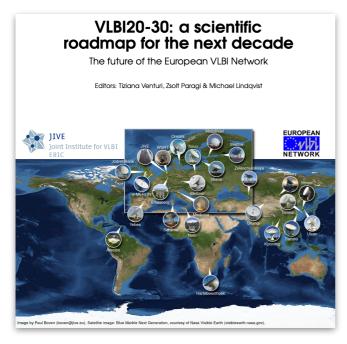
The discussions of a five-day workshop held in Cape Town (South Africa) in February 2020 are summarised in the publication "International Coordination of Multi-Messenger Transient Observations in the 2020s and Beyond". In this new era of multi-messenger astrophysics, the workshop was convened by the International Astronomical Union's Executive Committee Working Group on Global Coordination of Ground and Space Astrophysics and sponsored by the Kavli Foundation. After a discussion of existing and potential bottlenecks for transient and multi-messenger astronomy, eight broad areas of concern are identified and





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developed in the White Paper, with, very interestingly, specific recommendations offered in the text to deal with the identified issues. The authors clearly state that the publication is not only addressing collaborative groups and individual researchers, but also those organisations (including observatories, projects, scientific journals and funding agencies) whose contribution will be essential for ensuring a bright future to multi-messenger research. About 50 researchers from 18 countries (including France) participated in this meeting, with more than 30 organisations represented, including the SKA.



Lead by a core team of nine researchers, including P. Charlot (LAB, France), the European VLBI Network (EVN) Consortium has recently published a White Paper presenting EVN and VLBI (Very Long Baseline Interferometry) science priorities for the period 2020-2030 ("VLBI20-30: a scientific roadmap for the next decade - The future of the European VLBI Network"). The publication starts by providing a very complete overview of the EVN's potential to generate new and exciting results on an extremely wide range of astrophysical topics: cosmology, galaxy formation and evolution, active galactic nuclei, explosive phenomena and transient sources, galactic objects, Earth and space. Technical and organisational aspects of this big collaboration including radio telescopes distributed all over the world (see image on the left) are also discussed.

The SKA project has a critical role in this White Paper: since this powerful telescope will be available for global VLBI and EVN observations, it will strongly improve their science capabilities. The different sections of the article, therefore, show how adding the SKA to the current

network of EVN/VLBI antennae will impact most of the science cases presented in the White Paper. The beginning of operations of the SKA in the coming decade was actually one of the important arguments that motivated the EVN Consortium Board of Directors to commission the community to produce a white paper about EVN and VLBI science priorities for the period 2020-2030.

SKAO Current Vacancies

The following SKAO positions are currently open:

- * LOW AIV Lead Engineer Contract Type: Permanent (closing date: August 28, 2020)
- * Project Manager MID Infrastructure Contract Type: Permanent (closing date: August 30, 2020)
- * Senior Contracts Specialist Contract Type: Permanent (closing date: September 7, 2020)

Interested readers can <u>register</u> to automatically receive an e-mail as soon as a relevant job is published. More information can be found at the <u>SKAO webpage</u>.

Chiara Ferrari for the Maison SKA-France

