

## China SKA Regional Centre Prototyping

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The Square Kilometre Array (SKA) is the largest radio telescope to be built by astronomers. The key factor that promotes the SKA to achieve milestones in science frontier research is the capability of properly processing the SKA data and converting the data to scientific products. SKA Observatory (SKAO) will only produce pre-calibrated data which are not science-ready for publication. Instead, in-depth data analysis and astronomical software development will be performed in a number of geographically distributed SKA Regional Centres (SRCs) which also provide long-term data archive storage, computing resource and technique support for the SKA users. As the starting of the SKA Phase I (SKA1) is approaching, the focus of SRCs is in a transition from design to implementation. The SRC prototyping includes construction of multiple proto-SRCs, understanding the data challenge, resource estimate with inputs from the science user forum. China SKA Regional Centre (CSRC) is one of the important components of the global SRC network, and also one of the prominent contribution from the China SKA team. Chinese scientists are actively involved in the software development and analysis of the SKA pathfinder data which are crucial for operating CSRC in an efficient manner. CSRC will also be expanded its capacity to serve East Asia regional users, and gradually develops into one of the major SRCs in the world, making profound contribution to the entire SKA community. Shanghai Astronomical Observatory is leading the preparation of the CSRC prototyping work. A CSRC prototype has been built under the financial support from the Ministry of Science and Technology of China and the Chinese Academy of Sciences. Shanghai municipality expresses her strong desire to host the China SKA Regional Centre. CSRC will be an integrated organisation of domestic and international resource, including the participation of the astronomer community in SKA science and technique, computing and data storage resource in industries, educational resource in universities. In this talk, I will present the progress and plan of China SKA Regional Centre.

### **Suggested duration**

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