



China SKA Regional Centre Preparation

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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 related to the capability of properly processing the SKA data and converting the data to scientific products. In the construction plan of the SKA Observatory (SKAO), SKAO only produces pre-calibrated data which are not science-ready for publication. Instead, sophisticated data analysis and astronomical software development will be performed in a number of geographically distributed SKA Regional Centers (SKARC) which also provide long-term data archive storage, computing resource and technique support for the regional users. SKARCs offer the direct interface with the scientific users and act as centralized platforms of active academic research. As the starting of the SKA Phase I (SKA1) is approaching, the construction and collaboration of multiple regional centers has been put on the urgent agenda of the SKA project. Building China SKA Regional Center (CSKARC) is one of the important components of the China SKA strategy. The scientists are actively contributed to the software development and data analysis which are crucial for operating CSKARC in an efficient manner. SKA China Regional Center will also be one of the few major Regional Centers in the world and makes profound contribution to the entire SKA community. Shanghai Astronomical Observatory has made significant advance in the preparation of the CSKARC, and gains continuous 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 headquarter of the China SKA Regional Center. CSKARC will be a network of integrating domestic resource, including the participation of the astronomer community in SKA science and technique research, 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 and introduce the data processor prototype developed in Shanghai Astronomical Observatory. International collaborations are warmly welcome to promote SKA.