



**FAST (Five-hundred-meter
Aperture Spherical Radio Telescope)**

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FAST is a Chinese mega-science project which aims to build a 500-meter diameter active reflector radio telescope in a karst depression in Guizhou province, to achieve wide sky-coverage and high sensitivity for astronomical observations. The construction of FAST started on March 25, 2011 and finished on September 25, 2016 as planned. It is by far the largest single dish radio telescope in the world. On January 11, 2020, FAST passed national evaluation and began formal operation. All the technical specification met or exceeded the design specification. Acclaimed as the China Sky Eye, FAST is the world's largest single-dish and the most sensitive radio telescope with China's own intellectual property.

The main scientific fields of FAST include: survey the neutral hydrogen; pulsar searching; dominate the VLBI network in low frequencies; detect interstellar molecules; SETI (Search for Extra Terrestrial Intelligence). Its unparalleled sensitivity and excellent survey speed will enable astronomers to vastly expand the observational parameter space of compact objects, gaseous galaxies and interstellar medium.

By September 30, 2020, the number of pulsars discovered by FAST reached 224, and more than 40 high-quality papers were published, which fulfills the requirement of "early results" of General Secretary Xi. The "more results" stage has begun.