Development of a Terahertz Superconducting Imaging Array (TeSIA)

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The terahertz (THz) regime is the frequency window to be fully explored in astronomy. Dome A in Antarctic, with an altitude of 4093 m and temperature below -80 Celsius degree in winter, is regarded as the best site on earth for astronomical observations in this frequency regime. Currently, China is proposing to build an observatory there, in which Dome A 5m Terahertz Telescope (DATE5) is one of two major telescopes. This talk will present the development of next generation instrument for DATE5, namely terahertz superconducting imaging array (TeSIA).