

SPICA, cooled telescope optimized for mid- and far-infrared astronomy

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We present the current status of SPICA (Space Infrared Telescope for Cosmology and Astrophysics) project. SPICA is a mission optimized for mid- and far-infrared astronomy with a 3.5-m class cooled (4.5K) telescope. SPICA will be launched at ambient temperature and cooled down on orbit by mechanical coolers with the help of efficient radiative cooling. SPICA will address a number of key issues in modern astrophysics making the best use of its high spatial resolution and unprecedented sensitivity. We have been working on extensive technology development programs (e.g. mechanical coolers and light-weight mirror) for SPICA. The target of launch of SPICA is early 2010s.