The Balloon Experimental Twin Telescope for Infrared Interferometry (BETTII)

The Balloon Experimental Twin Telescope for Infrared Interferometry (BETTII) is an 8-meter baseline far-infrared interferometer to fly on a high altitude balloon. BETTII uses a double-Fourier Michelson interferometer to simultaneously obtain spatial and spectral information on science targets; the long baseline provides subarcsecond angular resolution, a capability unmatched by other far-infrared facilities. Here, we present key aspects of the overall design of the mission and provide an overview of the current status of the project. We also discuss briefly the implications of this experiment for future space-based far-infrared interferometers.