

(Sub-)mm wide-field observations at medium angular resolution: 30m + CCAT + APEX

F.-Xavier Désert¹

*¹IPAG: Institut de Planétologie et d'Astrophysique de Grenoble
Univ. Grenoble Alpes, CNRS, IPAG, F-38000 Grenoble, France*

Continuum observations in the millimetre domain have made much progress thanks to the advance of new detector technology. Cameras with ten thousand detectors are being built around the world so that the sky can be mapped with a speed increase by a factor 100 to 1000. New ground-based cameras bridge the gap between the whole sky (sub)millimetre survey by Planck and the far-infrared surveys by Herschel on one hand, and the high angular resolution observations (but with a small field-of-view) provided by interferometers such as Alma and Noema, on the other hand. The scientific cases for these cameras will be described, with a special emphasis on the new KID-based camera NIKA2 for the IRAM 30m telescope¹. Other instruments which are in progress will be described too, such as Artemis, Laboca and Saboca on APEX, Bolocam on the LMT and the grandiose 25-m CCAT project. These cameras will make scientific advances in many areas including the solar system, surveys of galactic star forming regions, nearby galaxies, extragalactic deep surveys and the measurement of clusters of galaxies interacting with the Cosmic Microwave Background.

References

[1] nika2 web page: <http://ipag.osug.fr/nika2>