

**ASTROPOLES – THE ASTRONOMICAL PROGRAM FOR THE IPY**

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It has long been recognised that the polar plateaus provide the best sites on the Earth's surface for the conduct of a wide range of astronomical observations, from optical to millimetre wavelengths. This is on account of the extremely cold, dry and stable air found there. The exceptional site conditions would allow observations to be made of the cosmos, with greater sensitivity and clarity, and across a wider part of the electromagnetic spectrum, than from temperate-latitude sites.

AstroPoles is the international astronomy community's IPY project, which aims to quantify these conditions at four sites in the Polar regions; Summit in Greenland, Ellesmere Island in Canada, and Domes A and C on the Antarctic plateau, and then to begin the process of turning these sites into frontline observatories. Dome A is likely to be the pre-eminent location on the Earth for observational astronomy, but has only recently been visited by humans (China in 2005). Dome C is the site for a new station (France/Italy, fully operational in 2005), and already shows indications for better seeing conditions than for any existing observatory. Summit Station (Denmark/USA) and Ellesmere Island (Canada) are also extremely cold and dry. They are the best prospective observing sites in the northern polar regions and their conditions have not yet been quantified.

This talk will describe the AstroPoles program and its aims for the IPY.