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## Cryoscope Pathfinder: cold telescope for the cold continent

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Antarctica is the perfect site for infrared (IR) astronomy, especially at inland sites. At Concordia station, previous observations have shown that the air is cold and dry, such that the IR background at 2.4 micron is only 1% compared to sites at temperate latitudes. Leveraging this “K dark” window unique to Antarctica, we are planning to install a 26-cm fully cryogenic wide-field (16 sq deg) telescope, Cryoscope Pathfinder, at Concordia. Cryoscope Pathfinder has a novel optical design, with a front corrector plate serving as a dewar window, allowing the interior to be pumped to vacuum and kept at a cryogenic temperature using a cryocooler. Cryoscope Pathfinder will perform a time-domain survey of the entire Southern sky in the K dark band. We will provide an overview of the plan and current status of the pathfinder and expected science results. We will also discuss the plan for the full-scale 50 sq deg 1-meter Cryoscope, and its powerful surveying capabilities.

**Primary authors:** TINYANONT, Samaporn (National Astronomical Research Institute of Thailand); KASLIWAL, Mansi (Caltech); GUILLOT, Tristan (Laboratoire Lagrange, CNRS); CRYOSCOPE COLLABORATION

**Presenter:** TINYANONT, Samaporn (National Astronomical Research Institute of Thailand)

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