

Poster

**Miniature Dilution Refrigerators for Radio Telescopes**

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We present a study of designs for both continuous and single-shot helium dilution refrigerators. Attention to the fridge geometry permits fridge operation through a range of tilt angles, rendering our devices capable of operation on typical telescope mounts. Cooling to below 100 mK is achieved with micro-Watt level heat lift. This level of performance, whilst not competitive with large lab-based systems, is appropriate for many astro-physical detection systems, and is made especially attractive by the system's compact dimensions and ease of operation.