The physical conditions of the Lupus molecular clouds

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The Lupus Molecular Cloud complex, about 150 pc away in the Gould Belt, is one of the closest star-forming regions to us. We present a catalogue of ammonia (NH3) inversion transition lines (1,1 and 2,2), towards selected areas within the Lupus I, III and IV regions, with data taken from Tidbinbilla 70m radio telescope. Our catalogue contains NH3 (1,1) detections in all three regions, nine in Lupus I, seven in Lupus III and two in Lupus IV, with an additional two detections of NH3 (2,2) towards Lupus I. In addition we also present, new Tidbinbilla 70m on-the-fly mapping mode that will allow mapping of NH3 towards star forming regions.