

Abstract Submitted
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Polarimeter Construction for Measurement of Polarization in GRBs¹ ROARK HABEGGER, DAN REICHART, Univ of NC - Chapel Hill —
The purpose of this project is to construct an autonomous polarimeter and attach it to an also autonomous telescope at Cerro Tololo Inter-American Observatory in the Chilean Andes. The polarimeter consists of two half-wave plates and two beam-splitting cubes, one for each of V and I band polarimetry. Eight pictures (four polarization angles times two cameras) are acquired and processed for each polarization measurement. Once integrated with the telescope, the instrument will automatically slew to Gamma-Ray Bursts (GRBs) localized by NASA's Swift spacecraft, and make polarization measurements in both bands. This will allow us to confirm that GRBs are driven by strong, and highly ordered, magnetic fields in their first few minutes.

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