Determining the progenitors of supernovae with early robotic observations

Andrew Howell^{1,2}

¹Las Cumbres Observatory Global Telescope Network, 6740 Cortona Dr., Suite 102, Goleta, CA, 93117, USA

²Department of Physics, Broida Hall, University of California, Santa Barbara, CA 93106-9530 email: ahowell@lcogt.net

Abstract. We present results from the LCOGT Supernova Key Project, a three year program to obtain lightcurves and spectra of 600 supernovae. The Las Cumbres Observatory Global Telescope Network is a network of eleven robotic 1m and 2m telescopes located at 5 sites around the world. With this facility long term monitoring of transient phenomena is possible, as are nearly instantaneous observations. We report on both core-collapse and thermonuclear supernovae observed within days of explosion, allowing insight into their progenitor stars.