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Surveying the Sky with the Large Synoptic Survey Telescope

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The LSST is a wide-field survey telescope that will observe the optical sky from Cerro Pachon in Chile. With an 8.4m primary mirror and a 3.2 Gpixel camera the LSST will image about 20,000 sq degrees of the sky every three nights. The system is designed to produce well sampled images with extremely high astrometric and photometric accuracy across the six passbands ugrizy (covering 350-1050nm). For a ten year survey, returning to each pointing on the sky > 1000 times, the final coadded depth of the LSST will be $r 27.5$ mag. In this talk I will describe the LSST system, its current status and how we expect to undertake science with a system that generates Petabytes of data per year.