**Abstract:**

Despite a several thousand years long history, sky surveying is experiencing a bonanza as detectors, telescopes and computers become ever more powerful. I will discuss how the unprecedentedly accurate and diverse data from the optical Sloan Digital Sky Survey (SDSS) have recently enabled numerous exciting discoveries. I will use three specific examples (asteroids, quasar variability, and mapping of the Milky Way stellar distribution) to give a preview of what to expect from the upcoming next-generation surveys, such as the Large Synoptic Survey Telescope (LSST). I will also describe how LSST data will be used to measure the properties of dark matter and dark energy.