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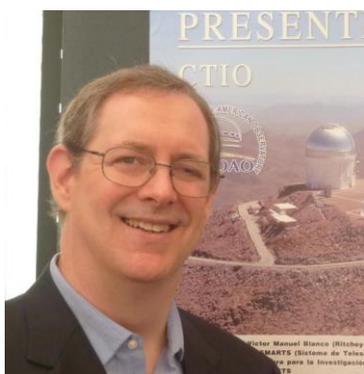
国台学术报告 NAOC COLLOQUIUM

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Time: Wednesday 2:30PM, Oct. 15 Location: A601 NAOC

From Photons to Petabytes: Surveys with DECam and LSST

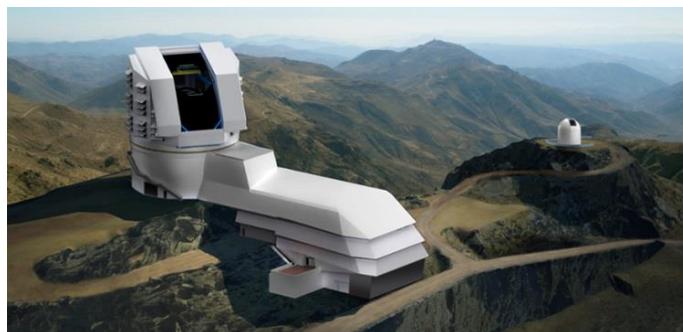
Prof. R. Chris Smith (AURA Observatory in Chile)



Dr. R. Chris Smith has served as Director and Head of Mission of AURA Observatory in Chile since 2009, providing high-level oversight and coordination for the Chilean activities of all of the telescopes acting under the auspices of AURA in Chile, including Cerro Tololo Inter-American Observatory (CTIO), Gemini-South, SOAR, LSST, and other smaller projects. From 2008 through 2012, He also held the position of the Director of CTIO, the southern-hemisphere facilities of the U.S. National Optical Astronomy Observatory, responsible for both the operations of the site infrastructure as well as CTIO telescopes. Dr. Smith came to Chile in 1991 as a CTIO Postdoctoral Research Fellow after completing his Ph.D. at Harvard University. After his postdoctoral fellowship in Chile, he moved to the University of Michigan with a McLaughlin Postdoctoral fellowship. During his period in Michigan, he maintained a close working relationship with CTIO, remotely restarting the Research Experiences for Undergraduates (REU) program there and initiating a parallel program for Chilean students. In 1998 he returned to CTIO as a staff astronomer. He has also served as head of NOAO's data archiving & processing efforts and as instrument scientist for wide-field optical imaging cameras as well as optical spectrographs at CTIO. His research interests focus on supernovae, supernova remnants and the interstellar medium, and include the use of supernovae in cosmological studies. He is a member of the High-z Supernova team that first published the discovery of the accelerating universe, an accomplishment that was recently recognized with a trip to Stockholm for the whole team to receive the 2011 Nobel Prize in Physics.

Abstract

Modern giga-pixel class digital cameras are changing the way we look at the skies, and particularly the southern skies from Chile. With this new generation of imagers, astronomy is becoming more focused on data-centric activities, including large-scale searches through databases and machine learning to identify and study objects observed in the course of surveys covering thousands of square degrees of sky. These datasets will soon grow from TeraBytes to many Petabytes with new initiatives such as the Dark Energy Camera (DECam) and the Large Synoptic Survey Telescope (LSST). I will provide an overview of some of the science being done today with DECam and related followup instrumentation, and an introduction to the scientific potential of the LSST.



All are welcome! Tea, coffee, biscuits will be served at 2:15 P.M.