

Large Synoptic Survey Telescope Presentations at SPIE

Astronomical Telescopes & Instrumentation

2010



Study of pixel area variations in prototype LSST CCDs, 7742-6, Sunday, 27 June, 10:50AM–11:10AM, Royal Palm IV-VI
Ivan V. Kotov, Alexandra I. Kotov, James Frank, Paul O'Connor, Veljko Radeka, Peter Z. Takacs, Brookhaven National Lab.

The Large Synoptic Survey Telescope preliminary design overview, 7733-9, Sunday, 27 June, 1:40PM–2:10PM, Golden Ballroom
Victor L. Krabbendam, National Optical Astronomy Observatory; Donald W. Sweeney, Lawrence Livermore National Lab.

LSST telescope mount and pier design overview 7733-11, Sunday, 27 June, 2:40PM–3:00PM, Golden Ballroom
Douglas R. Neill, Victor Krabbendam, National Optical Astronomy Observatory

LSST camera heat requirements using CFD and thermal seeing modeling, 7738-13, Sunday, 27 June, 2:50PM–3:10PM, Pacific Salon III
Jacques Sebag, National Optical Astronomy Observatory; Konstantinos Vogiatzis, Thirty Meter Telescope

Science data quality assessment for the Large Synoptic Survey Telescope, 7740-18, Sunday, 27 June, 4:40PM–5:00PM, Pacific Salon II
Richard A. Shaw, Kitt Peak National Observatory; Deborah Levine, California Institute of Technology; Timothy Axelrod, LSST Corp.; Russ R. Laher, Vince G. Mannings, Jeonghee Rho, California Institute of Technology

LSST all-sky IR camera cloud monitoring test results, 7733-154, Sunday, 27 June, 6:00PM, Grand Exhibit Hall
Jacques Sebag, National Optical Astronomy Observatory; Dimitri I. Klebe, Denver Museum of Nature & Science

Middleware design and implementation for LSST, 7740-87, Sunday, 27 June, 6:00PM, Grand Exhibit Hall
David Mills, German Schumacher, National Optical Astronomy Observatory

Producing an LSST data release, 7740-102, Sunday, 27 June, 6:00PM, Grand Exhibit Hall
Timothy Axelrod, The Univ. of Arizona; Jeff Kantor, LSST Corp.

Update and image quality error budget for the LSST camera optical design, 7733-102, Sunday, 27 June, 6:00PM, Grand Exhibit Hall
Brian J. Bauman, Lawrence Livermore National Lab.; Gordon B. Bowden, John Ku, Martin Nordby, SLAC National Accelerator Lab.; Scot S. Olivier, Vincent J. Riot, Lawrence Livermore National Lab.; Andrew P. Rasmussen, SLAC National Accelerator Lab.; Lynn G. Seppala, Lawrence Livermore National Lab.; Nadine Kurita, David K. Gilmore, Steven M. Kahn, SLAC National Accelerator Lab.

Software for automated CCD testing and characterization for Large Synoptic Survey Telescope, 7740-135, Sunday, 27 June, 6:00PM, Grand Exhibit Hall
Michael Prouza, Institute of Physics of the ASCR, v.v.i. (Czech Republic); Petr Kubanek, Instituto de Astrofísica de Andalucía (Spain) and IPL UV Valencia (Spain) and Fyzikální ústav AV CR, v.v.i. (Czech Republic); Paul O'Connor, Ivan Kotov, James Frank, Brookhaven National Lab.

Optical synoptic telescopes: new science frontiers (Plenary), 7733-502, Monday, 28 June 2010, 9:10 AM – 9:30 AM, TBD
J. Anthony Tyson, Univ. of California, Davis

Design and development of the 3.2 gigapixel camera for the Large Synoptic Survey Telescope, 7735-18, Monday, 28 June, 10:50AM–11:10AM, Town & Country
Steven M. Kahn, Nadine Kurita, David K. Gilmore, Martin Nordby, Rafe H. Schindler, SLAC National Accelerator Lab.; Paul O'Connor, Brookhaven National Lab.; John Oliver, Harvard Univ.; Richard Van Berg, Univ. of Pennsylvania; Scot S. Olivier, Vincent J. Riot, Lawrence Livermore National Lab.; Pierre Antilogus, Institut National de Physique Nucléaire et de Physique des Particules (France); Terry Schalk, SLAC National Accelerator Lab.

Management evolution of the LSST project, 7738-26, Monday, 28 June, 1:40PM–2:10PM, Pacific Salon III
Donald W. Sweeney, LSST Corp.; Charles F. Claver, LSST Corp. and National Optical Astronomy Observatory; Suzanne Jacoby, Jeffrey Kantor, LSST Corp.; Victor Krabbendam, National Optical Astronomy Observatory; Nadine Kurita, SLAC National Accelerator Lab.

LSST Telescope guider loop requirements analysis and predicted performance, 7738-69, Monday, 28 June, 5:30PM, Grand Exhibit Hall
Michael Warner, Cerro Tololo Inter-American Observatory (Chile); Vincent J. Riot, Lawrence Livermore National Lab.; Jacques Sebag, National Optical Astronomy Observatory

Simulating the LSST system, 7738-62, Monday, 28 June, 5:30PM, Grand Exhibit Hall
Andrew Connolly, Univ. of Washington; John Peterson, Purdue Univ.; J. Garrett Jernigan, Univ. of California, Berkeley; Robert Abel, Olympic College; Justin Bankert, Purdue Univ.; Chihway Chang, Stanford Linear Accelerator Ctr.; Charles F. Claver, National Optical Astronomy Observatory; Robert Gibson, Univ. of Washington; David K. Gilmore, Stanford Linear Accelerator Ctr.; Emily Grace, Purdue Univ.; R. Lynne Jones, Zeilko Ivezic, Univ. of Washington; James Jee, Univ. of California, Davis; Mario Juric, Harvard-Smithsonian Ctr. for Astrophysics; Steven M. Kahn, Stanford Univ.; Victor L. Krabbendam, National Optical Astronomy Observatory; Simon Krughoff, Univ. of Washington; Suzanne Lorenz, Purdue Univ.; James Pizagno, Univ. of Washington; Andrew P. Rasmussen, Stanford Linear Accelerator Ctr.; Nathan Todd, Purdue Univ.; J. Anthony Tyson, Univ. of California, Davis; Mallory Young, Purdue Univ.

An open source application framework for astronomical imaging pipelines, 7740-42, Wednesday, 30 June, 8:30AM–8:50AM, Pacific Salon II
Timothy Axelrod, The Univ. of Arizona; Jeff Kantor, LSST Corp.

LSST primary/tertiary mirror thermal control system, 7733-46, Wednesday, 30 June, 9:10AM–9:30AM, Golden Ballroom
Douglas R. Neill, National Optical Astronomy Observatory

LSST telescope primary/tertiary mirror hardpoints, 7739-142, Wednesday, 30 June, 11:20AM–11:40AM, Royal Palm I-III
Joseph R. De Vries, Douglas R. Neill, National Optical Astronomy Observatory

File-storage cyberinfrastructure for large projects years before first-light, 7740-54, Wednesday, 30 June, 2:30PM–2:50PM, Pacific Salon II
Arun Jagatheesan, National Optical Astronomy Observatory and Dice Research.org and LSST; Jeffrey Kantor, National Optical Astronomy Observatory; Raymond L. Plante, Univ. of Illinois at Urbana-Champaign; Jacek Becla, SLAC National Accelerator Lab.

Calibration dome screen for the Large Synoptic Survey Telescope, 7739-59, Wednesday, 30 June, 3:00PM–3:20PM, Royal Palm I-III
William J. Gressler, Victor L. Krabbendam, Ming Liang, Abhijit Saha, National Optical Astronomy Observatory; Christopher W. Stubbs, Harvard Univ.

An overview of the LSST data management system, 7740-60, Wednesday, 30 June, 5:00PM–5:20PM, Pacific Salon II
Jeffrey P. Kantor, Timothy Axelrod, LSST Corp.

LSST data challenges, 7740-61, Wednesday, 30 June, 5:20 PM–5:40PM, Pacific Salon II
Jeffrey P. Kantor, Timothy Axelrod, LSST Corp.

Shootout: the performance of dual-image cosmic-ray detection algorithms, 7737-65, Wednesday, 30 June, 6:00PM, Grand Exhibit Hall
Russ R. Laher, Nouhad Hamam, Frank J. Masci, Serge Monkewitz, Carl J. Grillmair, Suzanne R. Dodd, Sean Mattingly, California Institute of Technology; Simon Krughoff, Andrew Connolly, Univ. of Washington; David R. Kirkby, Univ. of California, Irvine; Paul Kendall, Northrop Grumman Corp.; Shanie Asato, Defense Group Inc.

The LSST camera corner raft conceptual design: a front-end for guiding and wavefront correction, 7736-229, Wednesday, 30 June, 6:00PM, Grand Exhibit Hall
Vincent J. Riot, Lawrence Livermore National Lab.; Kirk Arndt, Enver Alagoz, Alec Biccum, Andy Bohn, Joseph Clampit, Tony Coiro, Wei Cui, Alan Lichti, Desiree Skaggs, Matt J. Triano, Bo Xin, Kat Ziegler, Purdue Univ.; John Oliver, Harvard Univ.; Richard Van Berg, Univ. of Pennsylvania; Gunther M. Haller, Leonid Sapozhnikov, SLAC National Accelerator Lab.; Ian Shipsey, Purdue Univ.; Scot S. Olivier, Lawrence Livermore National Lab.

Using SysML for MBSE analysis of the LSST system, 7738-50, Thursday, 01 July, 2:00PM–2:20PM, Pacific Salon II
Charles F. Claver, National Optical Astronomy Observatory; Gregory Duboise-Felsmann, SLAC National Accelerator Lab.; Francisco Delgado, Cerro Tololo Inter-American Observatory (Chile); Pat Hascall, Dick Horn, Stuart Marshall, Martin Nordby, Terry Schalk, SLAC National Accelerator Lab.; German Schumacher, Cerro Tololo Inter-American Observatory (Chile); Jacques Sebag, National Optical Astronomy Observatory

The Large Synoptic Survey Telescope OCS and TCS models, 7738-51, Thursday, 01 July, 2:20PM–2:40PM, Pacific Salon II
German Schumacher, Francisco Delgado, Cerro Tololo Inter-American Observatory (Chile)

Transient alert operations for the Large Synoptic Survey Telescope, 7737-32, Thursday, 01 July, 2:40PM–3:00PM, Pacific Salon III
R. Christopher Smith, Robert L. Seaman, National Optical Astronomy Observatory; Timothy Axelrod, Jeff Kantor, LSST Corp.

Simulation of autonomous observing with a ground-based telescope: the LSST Experience, 7737-36, Thursday, 01 July, 4:40PM–5:00PM, Pacific Salon III
Stephen T. Ridgway, National Optical Astronomy Observatory; Kem H. Cook, Lawrence Livermore National Lab.; Robyn Allsman, LSST Corp.; Timothy Axelrod, The Univ. of Arizona; Srinivasan Chandrasekharan, Charles F. Claver, Francisco Delgado, National Optical Astronomy Observatory; Zeljko Ivezić, R. Lynne Jones, Simon Krughoff, Univ. of Washington; Michelle Miller, National Optical Astronomy Observatory; Catherine Petry, The Univ. of Arizona; Francesco Pierfederici, Harvard-Smithsonian Ctr. for Astrophysics; Phillip Pinto, The Univ. of Arizona; Abhijit Saha, National Optical Astronomy Observatory

Implementation of the LSST operations simulator for testing observatory design, operations, observing cadences, and delivery of LSST science, 7737-37, Thursday, 01 July, 5:00PM–5:20PM, Pacific Salon III
Kem H. Cook, Lawrence Livermore National Lab.; Robyn Allsman, LSST Corp.; Srinivasan Chandrasekharan, National Optical Astronomy Observatory; Francisco Delgado, Cerro Tololo Inter-American Observatory (Chile); R. Lynne Jones, Simon Krughoff, Univ. of Washington; Michelle Miller, National Optical Astronomy Observatory; Catherine Petry, The Univ. of Arizona; Francesco Pierfederici, Harvard-Smithsonian Ctr. for Astrophysics; Phillip Pinto, The Univ. of Airzona; Stephen T. Ridgway, Abhijit Saha, National Optical Astronomy Observatory

Fast force actuators for LSST primary/tertiary mirror, 7739-143, Thursday, 01 July, 6:00PM, Grand Exhibit Hall
Edward A. Hileman, National Optical Astronomy Observatory; Michael Warner, Cerro Tololo Inter-American Observatory (Chile); Oliver Wiecha, National Optical Astronomy Observatory

Optical testing of the LSST combined primary/tertiary mirror, 7739-126, Thursday, 01 July, 6:00PM, Grand Exhibit Hall
Michael T. Tuell, Hubert M. Martin, The Univ. of Arizona; James H. Burge, College of Optical Sciences, The Univ. of Arizona; William J. Gressler, National Optical Astronomy Observatory

Large Synoptic Survey Telescope filter design and fabrication, 7739-187, Thursday, 01 July, 6:00PM, Grand Exhibit Hall
David K. Gilmore, SLAC National Accelerator Lab.

Calibration of the LSST instrumental and atmospheric photometric passbands, 7737-52, Friday, 02 July, 2:30PM–2:50PM, Pacific Salon III
David L. Burke, SLAC National Accelerator Lab.; Timothy Axelrod, National Optical Astronomy Observatory; Stephane Blondin, European Organisation for Astronomical Research in the Southern Hemisphere (Germany) and Ctr. de Physique des Particules de Marseille (France); Charles F. Claver, Victor L. Krabbendam, Ming Liang, Abhijit Saha, National Optical Astronomy Observatory; R. Christopher Smith, CTIO, National Optical Astronomy Observatory; Christopher W. Stubbs, Harvard-Smithsonian Ctr. for Astrophysics

LSST Telescope primary/tertiary mirror cell assembly, 7733-95, Friday, 02 July, 3:10PM–3:30PM, Golden Ballroom
Douglas R. Neill, Edward A. Hileman, National Optical Astronomy Observatory

Using nodal aberration theory of higher order field aberrations in the initial alignment of the Large Synoptic Survey Telescope, 7733-99, Friday, 02 July, 4:40PM–5:00PM, Golden Ballroom
Tobias Schmid, CREOL, The College of Optics and Photonics, Univ. of Central Florida; Kevin P. Thompson, Optical Research Associates; Jannick P. Rolland, Univ. of Rochester; Douglas R. Neill, Jacques Sebag, William J. Gressler, Large Synoptic Survey Telescope

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