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Currents

In this Issue…

Maximizing Science in the Era of LSST: You are invited to participate in a community-based study of the US OIR capabilities needed to maximize LSST-enabled science. There are several ways to participate, the simplest of which is to fill out by **15 January 2016** an online survey of the LSST-enabled science you intend to carry out and the supporting capabilities that you will need to accomplish that science. Read more…

Join the NOAO Data Lab: NOAO has three open positions associated with its Data Lab project. We are looking for a Data Scientist to work with the DECam and MOSAIC z-band Legacy Surveys; a web-savvy astronomical software specialist; and a database expert. Review of applications will begin **15 December 2015**. Read more…

ANTARES Postdoc Position: The ANTARES project (Arizona-NOAO Temporal Analysis and Response to Events System) has an open position for an NOAO postdoctoral research associate. The postdoc will help develop a prototype to identify the "rarest" time domain alerts from the Large Synoptic Survey Telescope. Join the effort to mine the biggest astronomical alert streams! Read more…

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In this Issue

Maximizing Science in the Era of LSST: A Community-based Study of Needed US OIR Capabilities

The Large Synoptic Survey Telescope (LSST) will be a discovery machine for the US astronomical community, revealing astrophysical phenomena from the Solar System to the outer reaches of the visible Universe. While many discoveries will be made using LSST data alone, others will require OIR supporting capabilities, i.e., resources such as observing time on telescopes, instrumentation, software, computing and data management resources, access to archival data, etc. This study aims to quantify and prioritize the supporting capabilities needed to maximize the science enabled by LSST.

The study, led by NOAO and LSST, is funded by The Kavli Foundation and endorsed by NSF/AST. It will build on the report commissioned by NSF and the National Academy of Sciences (*Optimizing the U.S. Ground-Based Optical and Infrared Astronomy System in the Era of LSST*, the "Elmegreen report") and the 2013 NOAO report on *Spectroscopy in the Era of LSST*.

The goal of the study is to identify and assess quantitatively the resources needed to accomplish LSST-enabled science, based on community input. Because the study is science-driven, representative science programs will be worked out in detail to illustrate how science goals are linked to the quantitative requirements. In addition to quantifying and prioritizing supporting capabilities, the study will highlight ways that existing and planned resources could be positioned to accomplish the science goals and identify high priority future investments for OIR infrastructure.

Your Input Needed: Community input is critical to the success of this effort. You can participate in several ways.

1. Fill out the online survey describing the LSST-enabled science you intend to carry out and the supporting capabilities you need to accomplish that science. **Deadline 15 Jan 2016**.
2. As part of the survey, indicate whether you would be interested to participate in a study group and help develop illustrative science cases in quantitative detail. A subset of study group members will participate in a workshop that brings together the results of the individual study groups and prioritizes the needed capabilities.

Further details about this study are available at the study website.

Questions and Comments: Please contact Joan Najita (najita@noao.edu) or Beth Willman (bwillman@lsst.org) with questions about this study.

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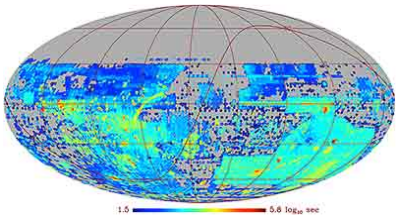
Open Positions in the NOAO Data Lab

Are you interested in science with large surveys? NOAO has three open positions associated with its Data Lab project. The Data Lab is being built to enable efficient exploration and analysis of the large data sets being generated by instruments on NOAO's wide-field telescopes.



Caption: Exposure map of DECam data in the NOAO archive, which illustrates the developing crowd-sourced survey of the southern sky.

We are currently looking for a Data Scientist to work with the DECam and MOSAIC z-band Legacy Surveys; a web-savvy astronomical software specialist; and a database expert. The jobs ads below provide further information about these positions:

- Survey Data Scientist
- Web Interface Developer
- Database Developer

Questions about the Data Scientist position may be directed to Arjun Dey (dey@noao.edu) and Knut Olsen (kolsen@noao.edu). Please direct questions about the developer positions to Knut Olsen (kolsen@noao.edu) and Mike Fitzpatrick (fitz@noao.edu) . Review of applications will begin **15 December 2015**.

Come help us build the NOAO Data Lab!

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ANTARES Postdoctoral Researcher Position

Attention time domain enthusiasts! The ANTARES project (Arizona-NOAO Temporal Analysis and Response to Events System) has an open position for a postdoctoral research associate at NOAO.

The goal of the ANTARES project is to develop a tool to rapidly identify interesting sources from imaging surveys that provide temporal sampling. We are building a prototype to identify the "rarest" time domain alerts from the Large Synoptic Survey Telescope (LSST). Because LSST will trigger tens of thousands of alerts per minute, and only a tiny fraction of these can be followed up by other facilities, it is critical to characterize alerts quickly and identify phenomena with high priority for follow up.

We are looking for someone with time-domain astronomy experience who wants to work with us to mine the biggest astronomical alert streams! The job ad provides further information about this position. Questions may be directed to Tom Matheson (matheson@noao.edu) and Abi Saha (saha@noao.edu)

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NOAO at the January AAS Meeting

NOAO invites you to attend these events at the AAS meeting in Kissimmee, FL **(4-8 January 2016):**

- **NOAO Transformed: A Status Report (a.k.a. NOAO Town Hall)** (Wednesday 6 January 6:30 - 7:30 pm *Note: Time and Date change*)
- **US National Gemini Office Workshop on Adaptive Optics** (Wednesday, 6 January 2016 at 2:00 - 3:30 pm)
- **TMT Open House** (Wednesday 6 January 5:30 - 6:30 pm)
- **TMT Thermal IR Science & Instrumentation Workshop** (Thursday 7 January 5:30-7:30 pm)

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Contact Us

Your input is welcome on any of these issues. Please send your thoughts to: currents@noao.edu.

Currents is a sparkplug for communication between NOAO and our community. It provides updates—and solicits community input—on NOAO observing opportunities and NOAO programs and policies on a more rapid timescale than is possible with the *NOAO Newsletter*.

NOAO is the national center for ground-based nighttime astronomy in the United States and is operated by the Association of Universities for Research in Astronomy (AURA), Inc. under cooperative agreement with the National Science Foundation.