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Currents

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Nominations Welcome for the NOAO Users Committee: Are you interested to serve on the NOAO Users Committee? Or do you know someone who is ideal for this responsibility? Nominations will be considered through **30 April 2017**. [[More...](#)]

Extremely Large Telescopes and the Dark Universe: Registration is now open for the conference "Shedding Light on the Dark Universe with Extremely Large Telescopes", to be held in Lanzhou China, 30 August–2 September 2017. This is the first in a three-part conference series aimed at gathering input from the dark matter and dark energy communities to optimize the operations and instrumentation of future extremely large optical/infrared telescopes. Register at the meeting website by **15 April 2017**. [[More...](#)]

2017 TMT Science Forum: "TMT: Beyond First Light", the next Thirty Meter Telescope Science Forum, will be held in Mysore, India, in November 2017. Future-generation instrumentation and AO systems for TMT will be a central focus of the meeting. Registration will open soon. Save the dates, and stay tuned for detailed information about the meeting and about NSF travel support for US community astronomers. [[More...](#)]

Meeting on Developing a Time Domain Follow-up System: To foster the development of a time domain follow-up system capable of meeting community needs in the LSST era, NOAO and Las Cumbres Observatory will host a workshop on "Building the Infrastructure for Time-Domain Alert Science in the LSST Era" **22–25 May 2017** in Tucson. Register at the meeting website. [[More...](#)]

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Nominations Welcome for the NOAO Users Committee

Robert Blum (NOAO Deputy Director)

NOAO is calling for expressions of interest from community members who would like to serve on the NOAO Users Committee (UC). Self-nominations are welcome as are nominations of other community members. Submissions should include a cover letter and a one-page curriculum vitae that summarizes the nominee's relevant background and NOAO- and Gemini-related interests. Please submit these materials to rblum@noao.edu. There is no restriction on citizenship. Nominations will be considered through **30 April 2017**.

NOAO expects to add one or more community-nominated persons to the UC this year. New members will be invited to the May 2017 UC meeting in Tucson. UC-related travel is paid for by NOAO.

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Meeting Announcement: Shedding Light on the Dark Universe with Extremely Large Telescopes

Information and registration: <https://conferences.pa.ucla.edu/dark-universe/index.html>

Registration deadline: **15 April 2017**

Registration is now open for the conference “Shedding Light on the Dark Universe with Extremely Large Telescopes”, to be held in Lanzhou China, **30 August–2 September 2017**. This will be the first installment of a three-part conference series aimed at gathering input from the dark matter and dark energy theory, phenomenology, and observational communities to optimize the operations and instrumentation at future extremely large 30-m class optical infrared telescopes. Specifically, the meeting aims to address the following questions:



- What are the most promising observations that will be enabled by giant telescopes? What capabilities are required?
- What are the key synergies between giant telescopes and other facilities? In what areas and topics will a concerted effort yield far superior results than the sum of all parts?
- What theoretical work is needed in preparation for first light? What are the limitations in our understanding that need to be overcome? What calculations are required in order to make testable predictions and interpret the results of future astronomical observations?

Subsequent meetings of the series will be at the University of California Los Angeles, on 2–6 April, 2018, and in Europe in summer 2018 (dates and venue are being finalized).

The meeting in Lanzhou will have no registration fee. Lanzhou can easily be reached with direct flights from Beijing, Hong Kong, and many other international destinations. There will be an optional excursion to the Gannan Tibetan Autonomous Region (for a fee that can be paid upon arrival). It includes the Labrang Temple (perhaps the second biggest Tibetan monastery in the world, with over 1000 monks and 100 reincarnated Buddhas) and the Sangke grasslands, which should be covered in Edelweiss and yaks.

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Preliminary announcement: 2017 TMT Science Forum in Mysore, India

Mark Dickinson (NOAO)

The next Thirty Meter Telescope (TMT) Science Forum will be held in Mysore, India, during the week of 6–10 November 2017 (exact dates still to be finalized). Each year, the Forum gathers members of the international astronomical community to meet, collaborate, and plan for future TMT science programs. It is the premier opportunity to learn about TMT, to discuss its science capabilities, and to join in shaping the observatory's future.

The theme for the 2017 Forum is “TMT: Beyond First Light”. Plans for TMT's first-generation instrumentation and adaptive optics systems are quite mature, and the time is ripe to start planning new capabilities beyond first light. Some conversations began at the last TMT Forum in Kyoto, Japan (see presentations at

<https://conference.ipac.caltech.edu/tmtsf2016/>), and the TMT International Observatory plans to launch feasibility studies for future-generation instruments later this year. The Forum in Mysore will be an important opportunity to foster discussion and to deepen collaboration among members of the international TMT community in instrumentation and operations planning for the observatory's future beyond first light.

Mysore, a fascinating and attractive city with many famous palaces, is situated about 150 km from Bangalore (home of the nearest international airport). The surrounding area features national parks, wildlife and bird sanctuaries, charming villages and temples, waterfalls, and many other attractions (see <http://karnatakaturism.org/Mysore/en/>).

Registration for the 2017 Forum will open soon, with an official first announcement that will provide detailed information about the meeting program, venue, lodging, and travel. There will also be information about National Science Foundation travel support for US community astronomers to attend the TMT Science Forum.

Stay tuned, and save the dates!



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Building the Infrastructure for Time-Domain Alert Science in the LSST Era

The era of large-scale time-domain astronomical surveys has arrived. Current projects (e.g., Catalina Sky Survey, the Palomar Transient Factory, Pan-STARRS) demonstrate the tremendous scientific potential of the time domain, and future facilities (e.g., Zwicky Transient Facility and LSST) are about to expand the scale of time-domain astronomy exponentially. Because the volume and rate of alerts will be well beyond the ability of individual investigators to process, the astronomical community will need a time-domain ecosystem equipped with software to generate, validate, and filter alerts, as well as systems to schedule, coordinate, and analyze follow-up observations.

Open access time on federally-funded facilities (e.g., SOAR, Blanco, Gemini, Las Cumbres Observatory), in combination with public brokers and alert streams, offers the opportunity to develop a full-fledged time-domain follow-up system. To foster the development of such a system, NOAO and Las Cumbres Observatory (LCO) will host a workshop on "Building the Infrastructure for Time-Domain Alert Science in the LSST Era" **22-25 May 2017** in Tucson.



Building the Infrastructure for Time-Domain Alert Science in the LSST Era

The workshop will bring together astronomers and others working on a wide variety of technical and scientific issues related to time-domain alerts. In addition, there will be an opportunity to explore the science that can be done with the LCO network using the newly available public component of their network. It will also begin the

planning and implementation of a time-domain system infrastructure that can take advantage of the resources available now as well as lay the groundwork for the opportunities LSST will present.

The goal of the workshop is to produce, for NOAO, LCO, and the ground-based OIR system, a plan for development of the time-domain ecosystem infrastructure and science programs that can begin to take advantage of resources available now.

Register at <http://www.noao.edu/meetings/lst-tds/>.

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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.

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