

news notes

Chile picked for giant telescope. The 42-meter European Extremely Large Telescope (E-ELT) will be built at the 3060-meter-high Cerro Armazones site in Chile's Atacama Desert, according to a 26 April statement released by the European Southern Observatory, the project's coordinating body. Chile beat out the island of Las Palmas in Spain, an ESO member state, in the site competition.



Artist's rendering of the European Extremely Large Telescope.

"This allows us to finalize the baseline design of this very ambitious project," says ESO director general Tim de Zeeuw. "Adding the transformational scientific capabilities of the E-ELT to ESO's already tremendously powerful Very Large Telescope [VLT, 20 km from the E-ELT site] further strengthens ESO's position as the world-leading organization for ground-based astronomy."

The Chilean government is donating a tract of land contiguous to the VLT site and containing Armazones to ensure that the telescopes are protected from light pollution and mining activities.

The final go-ahead for construction of the E-ELT is expected at the end of this year, with the start of operations planned for 2018.

PKG

A complement to ITER? The compact fusion reactor that Italy has agreed to help Russia build at a former weapons laboratory outside Moscow will have a "high probability" of attaining ignition, a long-sought threshold where the fusion reaction becomes self-sustaining. So says Bruno Coppi, the MIT physicist who led the design effort of the device known as Ignitor. The reactor will also give scientists an opportunity to work on some basic science problems that need to be resolved if fusion is ever going to become an energy source, he says.

Italian prime minister Silvio Berlusconi and Russian prime minister Vladimir Putin signed an agreement on 26 April for Italy to share the cost of building Ignitor on the Trinita site at the Kurchatov Institute in Troitsk. Coppi says the budget and the construction timetable are not finalized. Stephen Dean, president of the US industry group Fusion Power Associates, describes the pact signed in Milan as an agreement to negotiate the exact terms. He said Ignitor's small size and strong magnets make it a risky design. Coppi notes that ITER, the giant test reactor being built in Cadarache, France, by a seven-party international collaboration, won't be capable of ignition; Dean says that fusion power reactors are expected to operate at a high-gain, subignition state, in which some input of energy will be required to sustain the plasma and fusion reactions (see PHYSICS TODAY, April 2010, page 20). Still, Dean says Ignitor, if built, will be useful for experiments that would be more difficult and cumbersome to perform at ITER.

DK ■

web watch

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Compiled and edited by Charles Day

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<http://www.isgtw.org>

ISGTW INTERNATIONAL SCIENCE GRID THIS WEEK

Thanks to the internet, geographically distributed computers can be linked together to perform shared tasks. The online newsletter **International Science Grid This Week** covers the use of distributed computers to analyze and simulate scientific data.

<http://www.opticsinfobase.org/ee>



Optics Express, the open-access journal of the Optical Society of America, has a new bimonthly supplement devoted to the use of optical science and technology in renewable and sustainable energy. Called **Energy Express**, the new supplement will be devoted to one topic each issue. Solar concentrators was the focus of the inaugural April 2010 issue.

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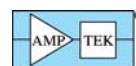
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