

\$1 Million in Private Support to UC San Diego Completes Funding for Construction of Innovative POLARBEAR Telescope

Telescope will allow scientists to get a first look back at the birth of the universe

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The POLARBEAR telescope, pictured here, will give scientists a look back to essentially the birth of the universe. [Click here to view an enlarged version of the above graphic.](#)

Thanks to two visionary donors, \$1 million in gifts to the University of California, San Diego, has initiated the construction of a telescope that may-for the first time-enable physicists to measure "gravitational waves" from the Big Bang, giving unique insight into the condition of the universe at its inception. The groundbreaking project places UC San Diego at the forefront of the emerging field of observational particle-astrophysics.

"The implications of the research derived from this telescope will be unique and far-reaching," said Hans Paar, a UC San Diego professor of physics working on the project. "Our findings will capture the birth of the universe, providing a deeper understanding of one of the most compelling questions in all of science: How did our universe begin?"

After learning about the historic initiative and an initial \$400,000 contribution from the James B. Ax Family Foundation to support the project, an anonymous donor gave UC San Diego's Division of Physical Sciences the remaining \$600,000 to advance the new research endeavor. Together, the two donations provide the funding needed to begin construction of the telescope for the project, dubbed "POLARBEAR" for Polarization of Background Radiation. Scientists from UC San Diego, UC Berkeley, Lawrence Berkeley National Laboratory and the University of Colorado are collaborating on the project, along with several researchers from universities in Canada, Britain and France. The telescope will initially be located at a University of California research facility in the Inyo Mountains, east of the Sierra Nevada Mountain Range near Bishop, California.

The telescope will allow scientists to probe a previously unexplored epoch of the universe, according to Brian Keating, an assistant professor of physics at UCSD and leading collaborator on the project. "The POLARBEAR project is a daring one," added Paar. "We are pushing the limits of what is possible and that is how progress is made."

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