



Saul Perlmutter Awarded 2011 Nobel Prize in Physics

3 times France Berkeley Fund grantee

Perlmutter, 52, a professor of physics at the University of California, Berkeley, and a faculty senior scientist at Lawrence Berkeley National Laboratory (LBNL), led the Supernova Cosmology Project that, in 1998, discovered that galaxies are receding from one another faster now than they were billions of years ago.

He will share the prize with Adam G. Riess, 41, of The Johns Hopkins University and Brian Schmidt, 44, of Australian National University's Mount Stromlo and Siding Spring Observatories, two members of the competing High-Z Supernova Search team. When the discovery was made, Riess was a postdoctoral fellow at UC Berkeley

working with astronomer Alex Filippenko, who at different times was a member of both teams.

Perlmutter is the fifth Nobel winner for UC Berkeley in the past 11 years, and the 22nd Nobelist overall. This is the ninth Nobel in Physics awarded to a UC Berkeley faculty member, the most recent winner being George Smoot in 2006.

The most recent National Research Council nationwide rankings identify the [Department of Physics](#) as among the best in the nation.

The accelerating expansion means that the universe could expand forever until, in the distant future, it is cold and dark. The teams' discovery led to speculation that there is a "dark energy" that is pushing the universe apart. Though dark energy theoretically makes up 73 percent of the matter and energy of the universe, astronomers and physicists have so far failed to discover the nature of this strange, repulsive force.

In recent years, Perlmutter has been working with NASA and the U.S. Department of Energy (DOE) to build and launch the first space-based observatory designed specifically to understand the nature of dark energy. A dark-energy mission was named the top telescope-building priority in an August 2010 report from a blue-ribbon committee of the National Academy of Sciences.

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France Berkeley Fund 1997 Grantees

Saul Perlmutter, Center for Particle Astrophysics, Lawrence Berkeley National Laboratory
Pain Reynald, Laboratoire de Physique Nucleaire de la Haute Energie, Paris

Measurement of the cosmological parameters using type Ia supernovae. The collaboration of the two groups will make it possible to obtain a new measurement of Omega m using type Ia supernovae. This measurement will be obtained using a population of more distant type Ia SNe and will therefore end up having a better precision than previous measurements.

France Berkeley Fund 2001 Grantees

Saul Perlmutter, Lawrence Berkeley National Laboratory, University of California, Berkeley
Pierre Antilogus, Institut de Physique Nucleaire de Lyon, Villeurbanne

Nearby supernova factory project (software).

France Berkeley Fund 2008 Grantees

Saul Perlmutter, Lawrence Berkeley National Laboratory, Berkeley
Gérard Smadja, Institut de Physique Nucléaire de Lyon, Villerbanne, France

The Nearby Supernova Factory.