

Experimental and Theoretical Challenges to Probing Dark Energy

A Workshop sponsored by the France-Stanford Center for Interdisciplinary Studies
Stanford University - December 2-4, 2010

Restrictions

All morning sessions are free and open to the public.

Round table discussions are open to invited workshop participants only.

Meals and social events are for workshop participants and invited guests only.

The Event

One of the most important and surprising scientific discoveries of the late 20th century was that the cosmological expansion of space is not slowing down, as had been expected due to the gravitational pull of all the matter in the Universe, but rather is increasing with time. We do not have a fundamental understanding of the root cause of this accelerating expansion. We label our ignorance with the term "Dark Energy". Although only definitively identified a dozen years ago, this Dark Energy dominates the energy density of the Universe. International communities of scientists - including astronomers, astrophysicists, cosmologists, and experimental and theoretical particle physicists - have banded together to attack this problem, to design future observational probes of Dark Energy, and to offer theoretical explanations that could be tested with these probes. Scientists in France and at Stanford are actively engaged and collaborating with one another on both the theoretical and experimental fronts. In order to take the next step in addressing the fundamental nature of Dark Energy, we must increase the sensitivity of our instruments to unprecedented levels, necessitating new levels of understanding of Dark Energy, stimulate ideas for tackling these issues, and spawn collaborations to work on these ideas. This Workshop will foster interactions and spawn new collaborations not only between France, Stanford and other US institutions, but also between scientists working in the various fields represented at the Workshop.

The Workshop is organized to maximize interactions and will include panel discussions, roundtable discussions for smaller groups of people to address questions in detail, and ample time for informal discussions. [Read more](#)

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Organizing Committee

France

- *Gérard Bonneaud*, LPNHE CNRS/IN2P3 & UPMC, **co-chair**
- *Yannick Mellier*, Institut d'Astrophysique de Paris IAP & UPMC
- *Reynald Pain*, LPNHE, CNRS/IN2P3 & UPMC
- *Gabriele Veneziano*, Collège de France, Paris

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- *Patricia Burchat*, Stanford Department of Physics, **co-chair**
- *Steve Kahn*, KIPAC & Stanford Department of Physics

Contact

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