

SSI2017 • August 14-25
45TH SLAC Summer Institute

COSMIC OPPORTUNITIES

The 2017 SLAC SUMMER INSTITUTE will focus on upcoming opportunities to expand our knowledge and understanding of the physics of the universe via cosmological measurements of the CMB, Dark Energy, Dark Matter and Gravitational Waves. New fundamental observations are forthcoming from improved experiments and new frontier facilities. What do we hope to learn from this new information?

Lectures covering all aspects of cosmology are given in the mornings during both weeks. Afternoons include special lectures and topical talks which alternate with discussion sessions, student projects and tours. Evening events include poster sessions and social activities. SSI is especially targeted for graduate students and young postdocs.



SCHOOL LECTURES:

- Cosmic Frontier Landscape
- Cosmology Basics
- Big Bang Nucleosynthesis
- Dark Energy Theory
- CMB Theory & History
- Dark Matter Theory
- Dark Energy and Large Scale Structure
- CMB Experimental Techniques
- Direct Detection of Dark Matter
- CMB & Inflation
- Dark Energy: Weak & Strong Lensing
- Axions as Dark Matter
- Theory of Gravitational Waves
- CMB & Light Degrees of Freedom
- Ultralight Dark Matter
- Dark Energy & Galaxy Clusters
- CMB Cosmology
- Detection of Gravitational Waves
- Dark Energy & Supernovae
- Indirect Searches for Dark Matter
- Dark Matter Searches at Accelerator Experiments
- Alternative Theories of Gravity
- Dark Energy: Combined Probes
- Baryo/Leptogenesis
- The Labyrinth Ahead

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SPONSORSHIP:

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