

**Jeudi 8 avril 11h00**

CEA-Saclay Bât 141, salle André Berthelot

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**Cosmology from the CMB  
at arcminute scales : first results  
from the Atacama Cosmology  
Telescope**

**JOSEPH FOWLER**

(Princeton University)

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The many measurements of the cosmic microwave background (CMB) over the last two decades have provided a new view of the universe and a standard model of cosmology. The data support the basic picture of inflation and the hot Big Bang, and they allow us to estimate multiple cosmological parameters with nearly percent-level precision. There remains much to learn from terrestrial observations of the arcminute-scale CMB anisotropies. They can tell us about the emergence of structure in the large-scale distribution of matter and the properties of the dark energy. Their power spectrum is sensitive to parameters of the quantum field governing the epoch of inflation. With the new Atacama Cosmology Telescope, we are starting to map the CMB at arcminute resolution to address these questions. These small-scale temperature anisotropies—along with the polarization of the CMB at a wide range of angular scales—offer fertile ground for many fruitful observations in the decade to come.

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Le café sera servi 10 minutes avant.

NB : La présentation d'une pièce d'identité est exigée à l'entrée du centre. Tous les auditeurs extérieurs sont priés de prévenir à l'avance Emilie Chancrin, tél. 01 69 08 23 50, e-mail : [emilie.chancrin@cea.fr](mailto:emilie.chancrin@cea.fr). (U.E. : délai de 24 h, hors U.E. : délai de 4 jours).