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The South Pole Telescope KATHRYN MIKNAITIS, Kavli Institute for Cosmological Physics, University of Chicago, SOUTH POLE TELESCOPE COLLABORATION — The South Pole Telescope (SPT) is a new 10-meter telescope recently deployed at the NSF South Pole Station. The SPT will perform millimeter-wave observations of the Cosmic Microwave Background using a large-format bolometer array. The first goal of the SPT project will be to image 4000 square degrees of sky at arcminute resolution, searching for galaxy clusters using the Sunyaev-Zel'dovich effect. The evolution of the number density of galaxy clusters is critically sensitive to the value of fundamental cosmological parameters, and offers a poweful method to investigate the nature of dark energy. An update on the SPT project and prospects for cosmology results will be described.

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