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Abstract for an Invited Paper  
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**Weak Gravitational Lensing and Dark Energy**

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Weak lensing is the statistically detectable distortion in the shapes of distant galaxies by the intervening dark matter. The shear correlations due to weak lensing are sensitive to the growth rate of clustering as well as to angular diameter distances. This talk will describe how lensing tomography can probe the nature and evolution of dark energy. New techniques to measure the lensing signal in the presence of systematic errors and results from current surveys will be presented.