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**The New Mysteries of the Cosmos**

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From WMAP's precise measurements of the Cosmic Microwave Background, to evidence for dark energy, to the ever-accelerating search for the early galaxies responsible for the reionization of neutral intergalactic hydrogen in the early universe and first light, the recent advances in observational cosmology present a number of serious challenges to our understanding of the physical universe. I will describe some of the leading puzzles posed by recent and ongoing observations.