Abstract for an Invited Paper for the APR07 Meeting of The American Physical Society

Searching for the First Stars

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I will review the physics of the primordial generation of stars as well as the prospects for their detection, focusing on three key issues. First, I will describe the properties and expected redshift distribution of such stars and the possibilities for their direct detection. Second, I will review the physics of primordial supernovae and how we can best search for these objects in future surveys. Finally, I will discuss modeling the present-day distribution of the first stellar remnants and what we can learn about them from Milky-Way surveys.