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### **Simulating the First Cosmic Structures**

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Understanding how the first stars and galaxies formed is one of the forefront challenges of modern astrophysics and cosmology. During the last three decades numerical simulations have proven to be a powerful tool in the development and testing of galaxy formation theories. The raw ingredients are the atomic and dark matter that comprise galaxies combined with a well-tested cosmological framework of small-amplitude seed perturbations generated in the early universe. This talk will briefly review progress in galaxy formation simulations and will highlight outstanding issues and prospects for the future.