Abraham Loeb starts from first principles, tracing the theoretical foundations of cosmology and carefully explaining the physics behind them. Topics include the gravitational growth of perturbations in an expanding universe, the abundance and properties of dark matter halos and galaxies, reionization, the observational methods used to detect the earliest galaxies and probe the diffuse gas between them—and much more.

Cosmology seeks to solve the fundamental mystery of our cosmic origins. This book offers a succinct and accessible primer at a time when breathtaking technological advances promise a wealth of new observational data on the first stars and galaxies.

- Provides a concise introduction to cosmology
- Covers all the basic concepts
- Gives an overview of the gravitational growth of perturbations in an expanding universe
- Explains the process of reionization
- Describes the observational methods used to detect the earliest galaxies

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