Inflation and the origin of perturbations

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Cosmic inflation describes a period of exponential expansion of space time in the very Universe, setting the stage for subsequent epochs of cosmology. In these lectures, I will cover the basic mechanism of cosmic inflation before focusing on its key prediction: the properties of the cosmological perturbations which form the seeds for the anisotropies observed in the cosmic microwave background and for the formation of large scale structures in our Universe. I will conclude by discuss some recent developments in this field.

Reference: https://arxiv.org/pdf/0907.5424.pdf