

We review the Schrödinger picture of field theory in curved spacetime and using this formalism, the power spectrum of massive non-interacting, minimally coupled scalars in a fixed de Sitter background is obtained. To calculate the N-point function in Schrödinger field theory, the in-in formalism is extended in the Friedmann-Lemaître-Robertson-Walker (FLRW) universe. We compute the three-point function for primordial scalar field fluctuation in the single field inflation by this in-in formalism. The results are the same as the three-point function in the Heisenberg picture.