Rolling With Quantum Fields MAINAK MUKHOPADHYAY, TANMAY VACHASPATI, Arizona State University — In cosmic inflation the quantum fluctuations of the inflaton are thought to break translational symmetry. Here we study the simpler problem of a classical rolling homogeneous field bi-quadratically coupled to a quantum field. We explicitly solve the problem using the newly developed classical-quantum correspondence, in which the dynamics of a quantum variable is seen to be equivalent to that of a complexified classical variable. We find that homogeneous initial conditions evolve homogeneously such that the quantum dynamics does not break translational invariance, contrary to the common lore of cosmic inflation.