1171-35-101 J. Douglas Wright* (jdw66@drexel.edu), Drexel University, Philadelphia, PA 19104. Random FPUT Chains.

We consider a linear Fermi-Pasta-Ulam-Tsingou lattice with random spatially varying material coefficients. Using the methods of stochastic homogenization we show that solutions with long wave initial data converge in an appropriate sense to solutions of a wave equation. The convergence is both strong and almost sure, but the rate is quite slow. The technique combines energy estimates with powerful classical results about random walks, specifically the law of the iterated logarithm. This work is joint with Joshua McGinnis. (Received August 09, 2021)