

## The quantum FPU problem

*Friday, June 9, 2017 9:30 AM (40 minutes)*

The quantum version of the Fermi-Pasta-Ulam problem is presented.

More precisely, a chain of many quantum particles pairwise interacting through any potential, with fixed ends, is considered.

It is shown that, close to thermal equilibrium, the dynamics of the system is described, to the first perturbative order, by a simple, effective quantum field theory, namely the quantum Korteweg-de Vries equation.

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