

# Nonlinear fluctuating hydrodynamics in one dimension

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The 1D KPZ equation can be viewed as a nonlinear, noisy conservation law. Most 1D physical systems have several conservation laws, which then requires a multi-component extension of the standard KPZ equation. We discuss the novel predictions, two models which allow for a mathematical analysis, and recent molecular dynamics simulations of hard-point fluids and FPU chains.