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Soliton gas at the interface of dispersive and generalised hydrodynamics

It has recently been realised that the equations describing soliton gases in nonlinear dispersive wave systems are strikingly similar to those arising in the framework of generalised hydrodynamics (GHD) for integrable quantum and classical many-body systems. These deep structural parallels have been recognised from both perspectives, leading to a number of important advances at the interface between the kinetic theory of soliton gases and GHD. In my talk, I will outline the key ideas underlying this connection, emphasising the common mathematical structures and physical principles that unify the two approaches.