

C. Kenig: Soliton Resolution for Nonlinear Wave Equations

We discuss the recent proofs of soliton resolution for radial solutions of the energy critical wave equation in 3 spatial dimensions (with Duyckaerts and Merle), a case in which the decomposition is unstable, and for exterior co-rotational wave maps from R^3 with the unit ball removed, and Dirichlet conditions, into S^3 (with Lawrie and Schlag) a case in which the decomposition is stable. Both proofs use crucially the “channel of energy property” introduced by Duyckaerts, Kenig and Merle.