

Solution Dynamics of Subcritical NLS Systems

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Significant results of the scalar NLS equation are discussed, paving the way for developments of the 1D parity-time NLS system. Consequences of integrability of both systems will be discussed, including a result analogous to the virial theorem of the 1D NLS equation. Generic solution dynamics of the 1D parity-time NLS and their apparent relation to the one-soliton breather solution are examined.