



ZAKHAROV-SHABAT SYSTEM WITH CONSTANT BOUNDARY CONDITIONS. REFLECTIONLESS POTENTIALS AND END POINT SINGULARITIES

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Abstract. We consider scalar defocusing nonlinear Schrödinger equation with constant boundary conditions. We aim here to provide a self contained pedagogical exposition of the most important facts regarding integrability of that classical evolution equation. It comprises the following topics: direct and inverse scattering problem and the dressing method.

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