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*Well-posedness of nonlinear dispersive PDEs via the unified transform method.*

The unified transform method was introduced in late nineties as the analogue of the inverse scattering transform machinery for integrable nonlinear equations on the half-line. It was later understood that it also has significant implications for linear initial-boundary value problems. In this talk, this method is employed in a new direction, namely for showing well-posedness of nonlinear dispersive equations on the half-line with data in Sobolev spaces. (Received September 14, 2016)