MARK ABLOWITZ, University of Colorado, Boulder Nonlinear Waves: Solitons At Age 50 and More...

The study of nonlinear waves has led to many remarkable discoveries, one of them being 'solitons', found some 50 years ago. Solitons motivated the development of the Inverse Scattering Transform (IST). This is a method that leads to the solution of a class of nonlinear evolution equations. History, background, examples and new nonlocal integrable equations will be discussed.