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A vortex filament equation with peakon solutions

The vortex filament equation is well-known to be equivalent under a Hashimoto transformation to the nonlinear Schrodinger equation which is part of a hierarchy of integrable equations. I will discuss recent work on deriving a new integrable equation that is connected to this hierarchy and has peakon solutions. Through a Hashimoto transformation, this equation represents a new kind of integrable vortex filament equation.