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An elliptic analogue of the Camassa-Holm equation

In this talk, an elliptic analogue of the Camassa-Holm equation is described, which was obtained in a classification of nonlocal CH-type equations with a 3rd order local symmetry. The equation contains not only nonlocal terms (like CH), but also coefficients that are implicitly defined in terms of an ordinary differential equation that is solved in elliptic functions. The complete structure and properties of this equation are still somewhat mysterious, so here we present some preliminary observations and describe various open problems. This is based on joint work with Ben Gormley and Vladimir Novikov.