



## **Transformation of an isolated pulse into an envelope soliton: long-time solutions of the Ostrovsky equation**

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The Ostrovsky equation is a modification of the Korteweg-de Vries equation which takes account of background rotation. It is well known that the effect of the added rotation term is to destroy the usual KdV solitary wave. Instead this wave decays in finite time into radiated Poincare waves. Here we will show, mainly through numerical simulations, that after a long time, these radiated waves form an envelope soliton, propagating with the maximum group velocity allowed by the linear spectrum. The analytical description of this requires an extension of the usual NLS equation to higher order.