On the numerical solution of generalized Ostrovsky equations

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Presented in this talk is a numerical study of solitary waves of the Ostrovsky equation and generalized versions. From the point of view of the numerical analysis, the talk is focused on the improvement of the methods to generate traveling waves, on the performance of experiments of perturbations of the traveling waves and on the analysis of convergence of a fully discrete code considered to make these experiments. From the experimental point of view, the study attempts to shed some light on the dynamics of these waves in the classical and generalized versions of the equation, for classical and generalized solitary waves and for small and large perturbations.