Ultra-fast deformation of periodic orbit

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We consider an integrable system of generalised Liénard type which presents a continuum of periodic orbit. Then we study two types of perturbations of this system. The first one gives rise to a phenomenon of canard explosion which ends by a homoclinic bifurcation. The second one gives us the possibility to follow the deformation of an explicit periodic orbit until it disappears via a homoclinic bifurcation.