Phase solitons in DDEs with large delay

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Soliton-like solutions can be observed in DDEs with large delay as periodic solutions with a period close to the delay time, that stay close to a stable equilibrium during a large part of the period and show periodically a localized deviation from the equilibrium. We investigate phase solitons for an excitable phase oscillator with delayed feedback and for a model of a ring laser with optical injection. In particular, we study their stability and the scaling behavior of the Floquet spectrum for the delay tending to infinity.