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**Periodic perturbations of a class of diffused delay models**

Many models bearing on phenomena that exhibit a delay effect can be cast in the form of a system of functional differential equations. In some situations the delay cannot be measured exactly, due to some noise, or it is genuinely spread randomly around its expected value. In either case a gamma-type distribution of the delay may be appropriate. In this talk we consider systems of (first- and second-order) differential equations depending on delay effect following a gamma-type distribution and study the harmonic response to periodic perturbations.