# ASYMPTOTIC STABILITY OF SPR_SODE MODEL FOR DENGUE

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## ABSTRACT

An ordinary differential equation with stochastic parameters, called SPR_SODE model for the spread of dengue fever was considered to analyze further. It was defined the set of stochastic equations and a reproductive number $R_0$. This $R_0$ was defined for mosquito as well as human parameters. In this paper, the asymptotic stability of the disease-free equilibrium point of the above said model was discussed.

**KEYWORDS:** SPR_SODE Model, Stochastic, Scaled Variables, Asymptotic Stability, Reproductive Number