



**GLOBAL AND STOCHASTIC STABILITY OF THE NON
LINEAR MODEL SIQ EPIDEMIC MODEL**

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Abstract

In this paper, addresses a time-delayed epidemiologic model by experiencing the disease; whenever the quarantine will return to the susceptible. First, the equilibrium and global stabilities of the endemic equilibrium. Second, stochastic stability. Finally, the equilibrium and stability of the epidemic model with age.

Keywords and phrases: epidemic model, global asymptotic stability, Lyapunov functional, stochastic stability.

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