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Stability Analysis of the Steady-State Solution of a Mathematical Model in Tumor Angiogenesis

Abstract

The stability of the steady-state solution of endothelial cell equation in a mathematical model for tumor angiogenesis is studied. It is proven mathematically that the steady-state solution is indeed the transition probability function $\tau(c_a, f)$. Trajectories near the critical point(s) are drawn, and the biological importance of the result is expressed briefly.