The existence of traveling wave of FitzHugh-Nagumo system

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In this paper, considering traveling wave of FitzHugh-Nagumo system, we have to study a threedimensional nonlinear ordinary differential equations. By analyzing the higher-dimension Hopf bifurcation, we show that there exist three small amplitude periodic traveling wave of FitzHugh-Nagumo System with some parameters 0 < a < 1/2, b > 0, d > 0.