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Modeling and tomographic visualization of the dying Schrodinger cat and its implication for the biomechanical dynamics of cardiovascular diseases

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The dying Schrodinger cat is modeled in this study as a simple harmonic oscillator using the usual various steps of modeling. The formulated constitutive equation of the dying cat developed is a second order differential equation with physical constant coefficients which includes three crucial components: the damping constant, b, which represents the quantity of poison the cat is exposed to, the spring constant, k, which represents blood flowing in the cat's heart and the cat's mass, m. The constitutive equation is numerically solved and simulated for varying amount of poison, blood flowing in the heart and cat mass. Both the numerical results and the tomographic visualization depicted the following three states with time and energy: underdose state in normal sinusoidal motion and energy, critical dosage state in anomalous sinusoidal motion and highly reduced energy, and overdose state in quenched sinusoidal motion and energy. This study motivated our modeling strategy of assuming that the physiological state of the presence of the cardiovascular disease (CVA) in the infected person (IP) can be physically described as the superposition of the characteristic wave of the disease on the characteristic wave of the healthy person (HP). The resultant superposed wave is the constitutive carrier wave equation which can be solved to provide the biomechanical dynamics of the IPs and are depicted in an electrocardiogram (ECG). The prospect of using this approach for the prognosis of the physiological state of cardiovascular diseases is then discussed.

Apply to be considered for a student ; award (Yes / No)?

No

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