

FitzHugh-Nagumo Simplified Cardiac Action Potential Model, 1961

v. 1.3

Table of contents

1 Description.....	2
2 References.....	2
3 Download.....	2

1. Description

The FitzHugh-Nagumo model is a simplification of the Hodgkin-Huxley (1952) model. The number of equations is reduced to two: a cubic equation representing the fast variable (u) and linear equation for the slow variable (vv). The model was modified by Aliev and Panfilov to better approximate cardiac action potential properties.

2. References

- Impulses and physiological states in theoretical models of nerve membrane, FitzHugh, R.A., 1961, *Biophys. J.*, 1, 445-466.
- A simple two-variable model of cardiac excitation, Aliev, R.R. and Panfilov, A.V., 1996, *Chaos, Solitons and Fractals*, 7, 293-301.

3. Download

This model is part of the stable CESE distribution.

- Download [CESE stable](#).