Abstract Submitted
for the NWS16 Meeting of
The American Physical Society

A Maximum Path-Entropy Analysis of Calcium Ion-Channel Gating. ROY CAMPBELL, Walla Walla University — The principle of maximum path-entropy, a generalization to non-equilibrium systems of the principle of maximum entropy familiar to students of equilibrium statistical mechanics, has been used to analyze ion-channel gating. We have analyzed the gating of Inositol trisphosphate receptor (InsP3R), a membrane protein acting as a calcium channel. Various aggregated Markov models for InsP3R were tested and model parameters were determined by applying the principle of maximum path-entropy to patch-clamp gating data.

Roy Campbell
Walla Walla University

Date submitted: 03 Apr 2016 Electronic form version 1.4