



Fig. S1: (A-P) As in Figs. 2B and 2C: Simulations of the IN model for different parametrizations θ_i with stimuli I_{Stim} (normalized in gray). Solutions for $v(t)$ are shown for a reference solver (black), the original solver scheme (green) and a deterministic FE solver (orange). A SDF is shown for a $\text{FE}_{\frac{1}{2}}$ solver. For plotting, $v(t)$ were clipped at 30. In every panel, spike-times are shown in a raster plot for all deterministic solvers (bottom).