Table S1: Fitted Spikey LIF parameters for three runs with varying degrees of freedom. The "initial"-column shows the initial neuron parameters from which the optimization process is started, relevant constant parameters are given in the "constants"-column. Final fitted parameters are given in the "fitted"-column along with the resulting RMSE.



(b) LIF neuron simulation results with fitted parameters.

Figure S6: Analysis of 192 EPSP traces collected from all Spikey neurons for a single input spike at t = 1000 ms and simulation results for a theoretical LIF neuron with fitted parameters. Figure (a) shows the 25/75% quantile, median, minimum/maximum and a denoised trace including its control points, (b) the simulation results for fitting LIF parameters to the denoised EPSP.