



S 2. Fig. **Neuronal statistics.** Neuronal distributions of the average \overline{ISI} (a,d), of the coefficient of variation CV (b,e) and of the average effective synaptic input \overline{W}_i (c,f). The data in the first row are for $\Delta V = 1$ mV and in the second one for $\Delta V = 5$ mV. For $\Delta V = 1$ mV ($\Delta V = 5$ mV) black solid line with filled circles correspond to $g = 1$ ($g = 4$) and red dashed lines with open squares to $g = 4$ ($g = 10$). Insets of (a,d) and (c,f), same as the main figure in a lower g regime: $g = 0.4$ ($g = 1$) for $\Delta V = 1$ mV ($\Delta V = 5$ mV). The system is left to evolve during 10^7 spikes, after discarding 10^5 spike events. Other parameters used in the simulation: $K = 20$, $N = 400$ and $\tau_\alpha = 20$ ms.