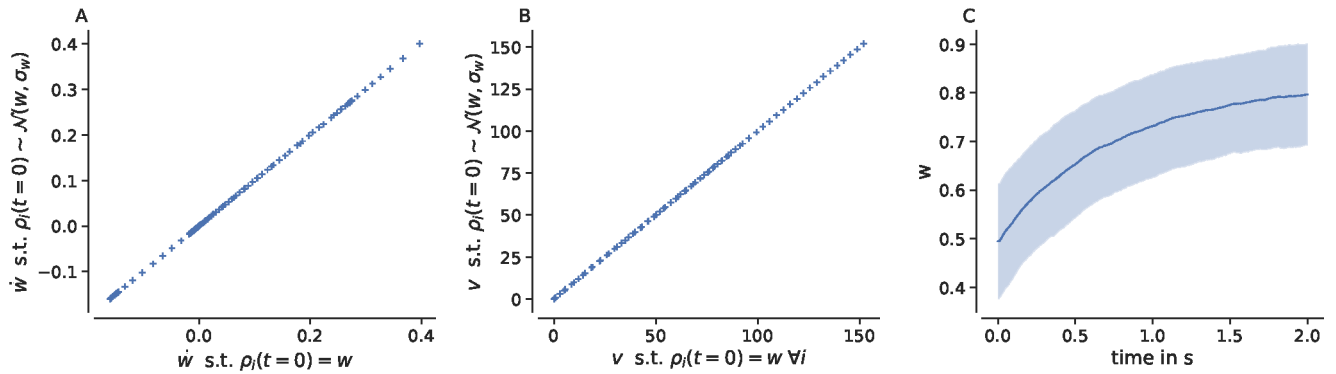


## Supplementary Material

### 1 SUPPLEMENTARY TABLES AND FIGURES

#### 1.1 Figures



**Figure S1. The effect of randomly initialized synaptic weights.** Numerically derived change in average synaptic weight depend on the initialization of weights. **(A)** The average synaptic weight change  $\dot{w}$  given an initial distribution of individual synaptic weights according to a normal distribution  $\rho_i \sim \mathcal{N}(w, \sigma_w)$  is similar to the average synaptic weight resulting from an initialization  $\rho_i = w, \forall i$ . **(B)** Effect on the postsynaptic firing rate  $v$ , analog to (A). **(C)** Exemplary temporal evolution of the average synaptic weight with standard deviation across synapses given a normal distributed initialization. All illustrated data points underlie the P<sub>2</sub>-setup simulated with  $u \in \text{np.arange}(0, 101, 2)$  and  $w \in [0, 0.5, 1]$ .