Outline of replication of Richardson *et al.* (2003)

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$$I_{syn} = g_e(t)(V - E_e) + g_i(t)(V - E_i) \tag{1}$$

$$\tau_e \frac{d}{dt} g_e = g_{e0} - g_e + \sigma_e \sqrt{2\tau_e} \xi_e(t) \tag{2}$$

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