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Neuromodulation of synaptic plasticity rules avoids

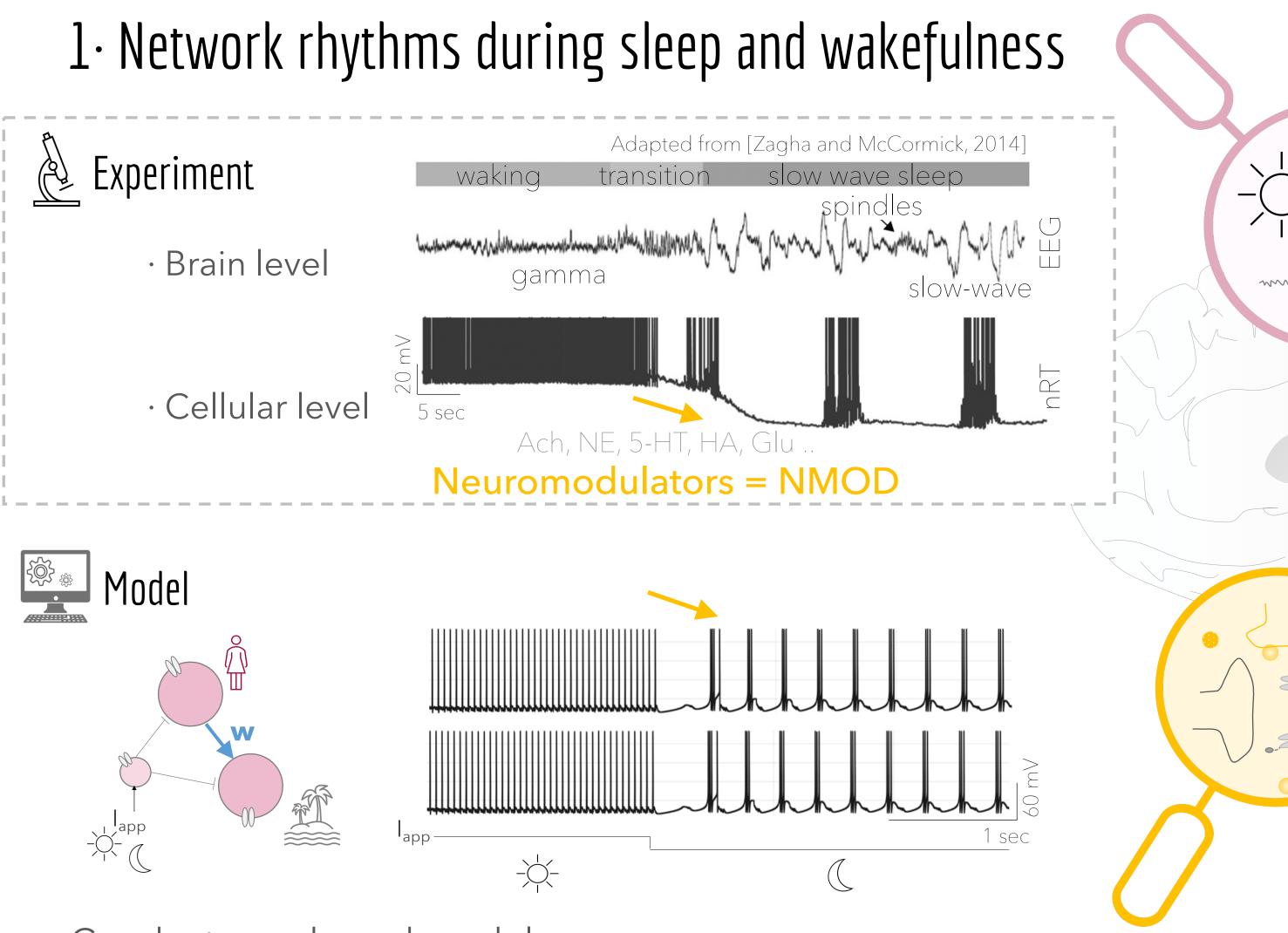
homeostatic reset of synaptic weights during switches in brain states

Kathleen Jacquerie, Caroline Minne and Guillaume Drion

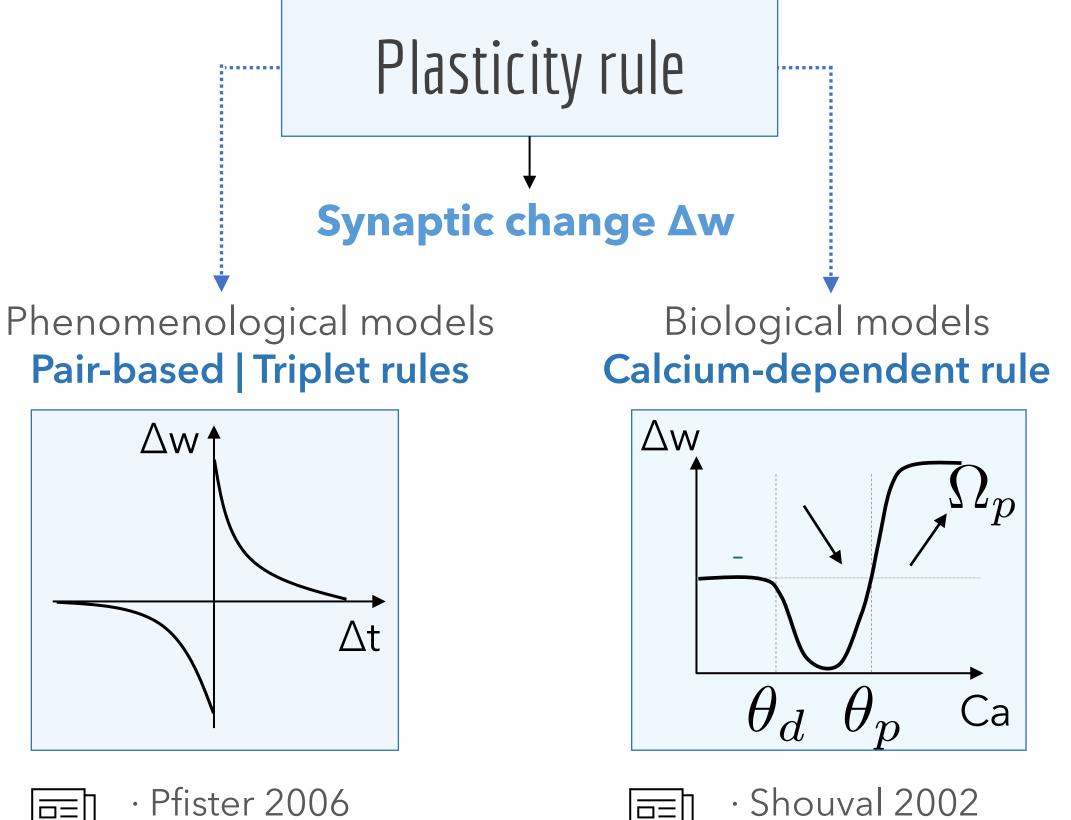
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III. 072



2. Which synaptic plasticity rule is compatible with switches?



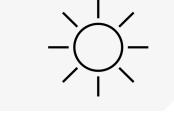
Conductance-based model

- ✓ Robust to neuromodulation
- ✓ Robust to plasticity

Model

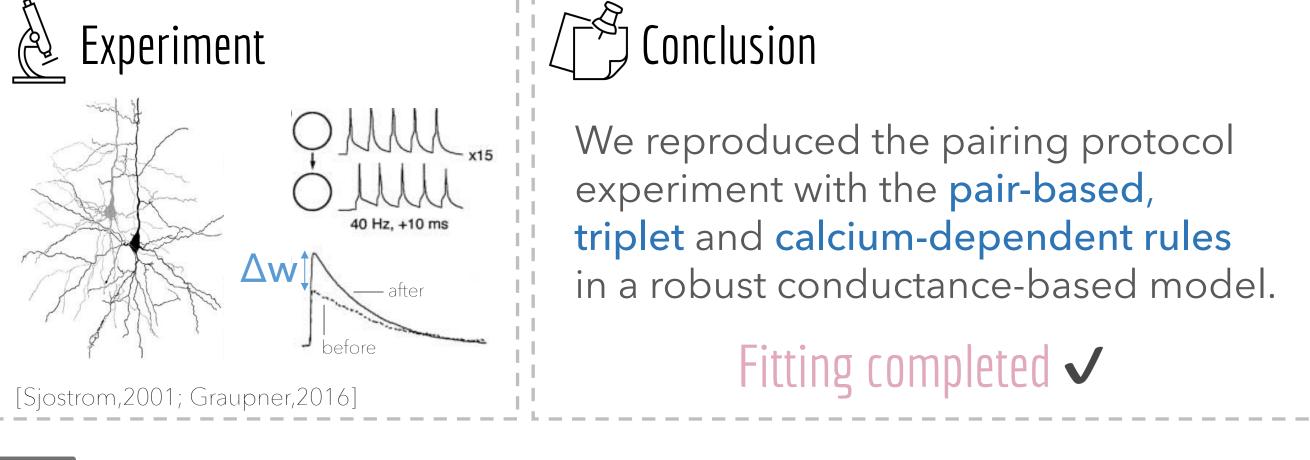
[Drion,2018; Jacquerie,2021]

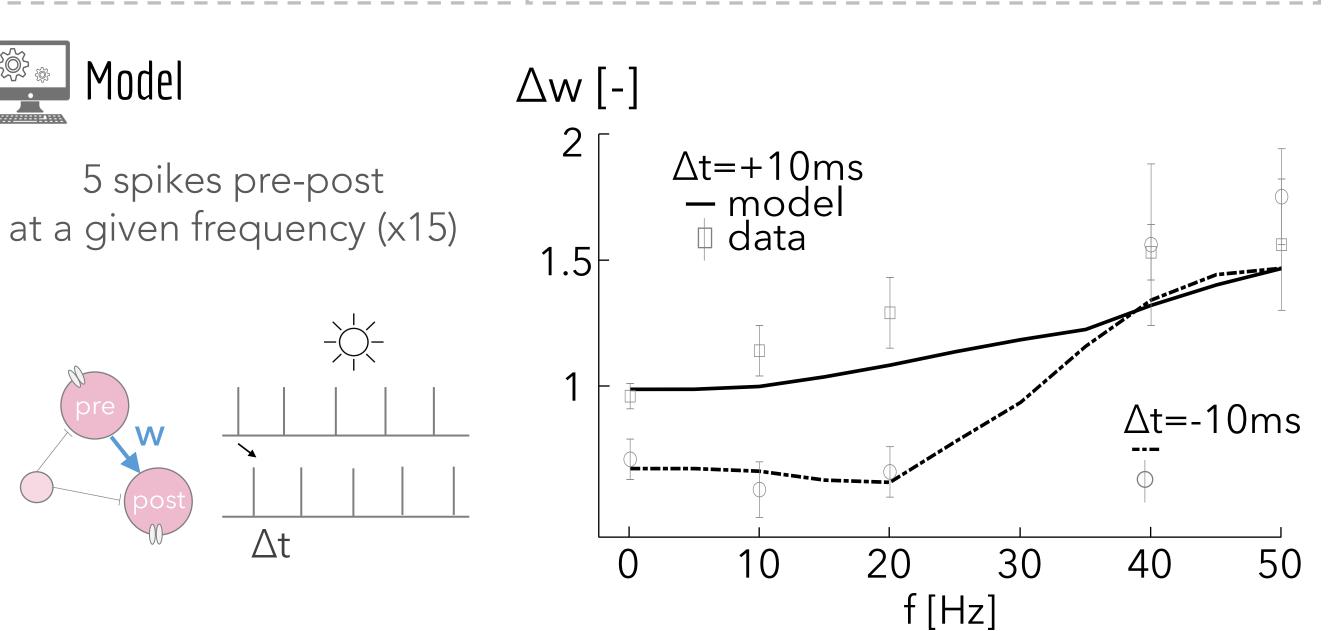
3. Validation on experimental data in wakefulness

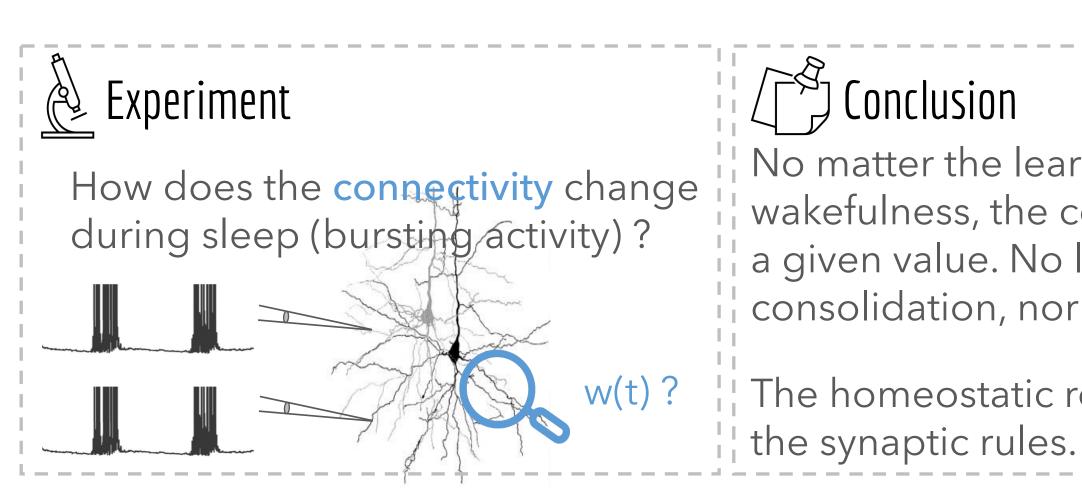


4. Synaptic rules tested during sleep

· Graupner 2016

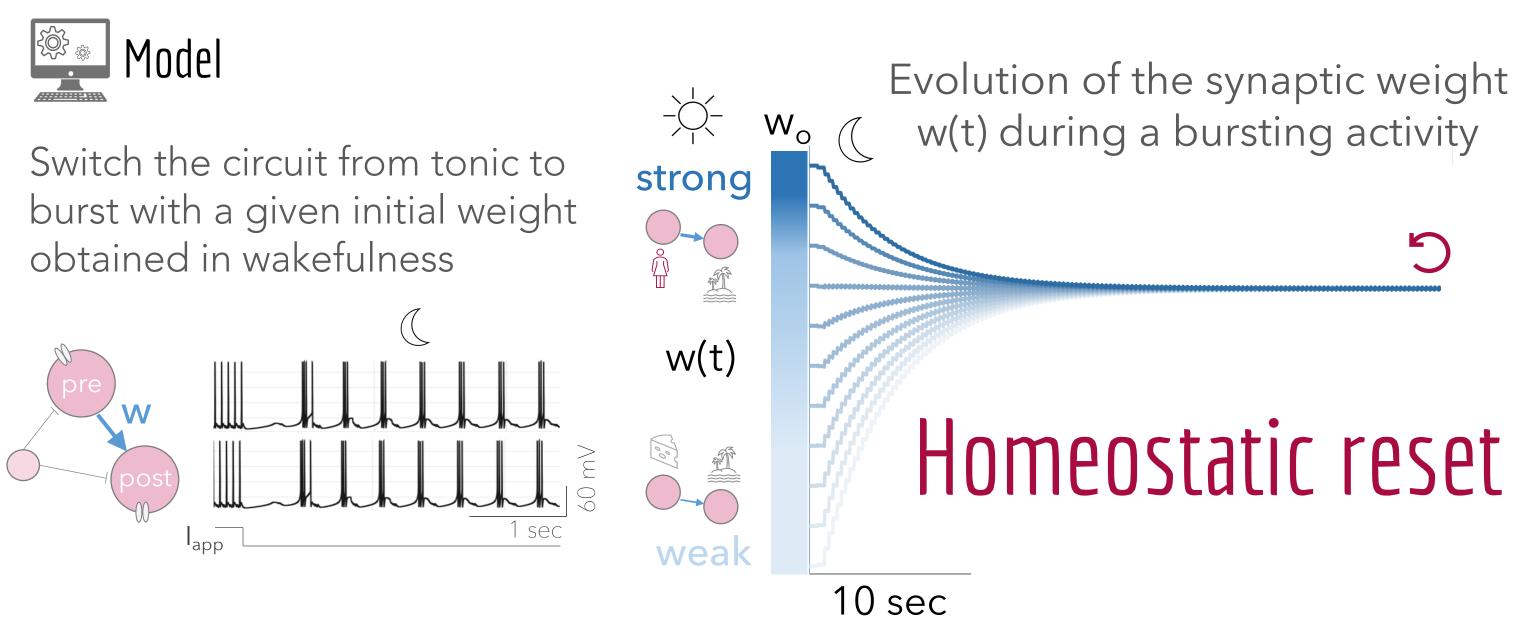






Conclusion No matter the learning acquired during wakefulness, the connection is restored to 🗄 a given value. No learning, nor consolidation, nor down-selection is shown. : The homeostatic reset is independent on

· Graupner 2016



5. Neuromodulation of synaptic plasticity rules

