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Regular spiking in asymmetrically delay-coupled FitzHugh-Nagumo systems

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We study two delay-coupled FitzHugh-Nagumo systems, introducing a mismatch between the delay times, as the simplest representation of interacting neurons. We demonstrate that the presence of delays can cause periodic oscillations which coexist with a stable fixed point. Periodic solutions observed are of two types, which we refer to as a "long" and a "short" cycle, respectively.

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