



# NEUROSCIENCE CONFERENCE SERIES

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## **Computational principles of the attenuation of self-generated touch**

Why can't you tickle yourself? Previous behavioural and neuroimaging evidence suggests that when we move one hand to touch the other, the resulting tactile sensation is perceived as less intense compared to identical touches of external origin. This somatosensory attenuation phenomenon is hypothesized to arise because our brains use internal information about the motor command (efference copy) to predict the tactile consequences of the movement and attenuate the tactile feedback based on these predictions. However, little is known about how the brain produces this somatosensory attenuation. I will present behavioural data from three recent studies we conducted to investigate the attenuation under different spatial configurations: when using a handheld tool, when experiencing the rubber hand illusion or when performing motor imagery. I will also present data from our fMRI study on somatosensory attenuation and its spatial principle. Finally, I will show results from our most recent study on learning and unlearning sensory delays in our voluntary movements.

**Date: Tuesday, 18 July 2018**

**Hour: 15:00**

**Sala de Graus, Faculty of Psychology, Mundet Campus**



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