

## Carlijn Vernooij

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### Contact details

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### About

**PhD Title:** The role of mechanical resonance in physiological finger tremor

**Supervisors:** Dr. Martin Lakie, Dr Raymond Reynolds

After obtaining her BSc in Human Movement Sciences at the University of Groningen (The Netherlands), and a year of being a board member of her sorority, Carlijn started two research masters in Human Movement Sciences (University of Groningen, The Netherlands) – one focussing on rehabilitation and one on general motor control. She finished her MSc degree combining her two research areas in a graduation project on muscle synergies while performing a simulated stone knapping task. Carlijn started her PhD on underlying mechanisms of physiological tremor in November 2010 at the University of Birmingham.

### Qualifications

BSc Human Movement Sciences, University of Groningen, The Netherlands  
MSc Human Movement Sciences, University of Groningen, The Netherlands

### Research

**Research group:** Human Movement Group

### Publications

#### Papers:

- **Vernooij CA**, Reynolds RF, Lakie M. A dominant role for mechanical resonance in physiological finger tremor revealed by selective minimisation of voluntary drive and movement. *Journal of neurophysiology* (February 13, 2013). doi: 10.1152/jn.00926.2012.
- Lakie M, **Vernooij CA**, Osborne TM, Reynolds RF. The resonant component of human physiological hand tremor is altered by slow voluntary movements. *The Journal of Physiology* 590: 2471–2483, 2012.
- **Vernooij CA**, Mouton LJ, Bongers RM. Learning to Control Orientation and Force in a Hammering Task. *Zeitschrift für Psychologie* 220: 29–36, 2012.

#### Conference abstracts:

- **Vernooij CA**, Lakie M, Reynolds RF. Voluntary vs electrical muscle activation reveals the resonant nature of physiological finger tremor. In: *Proceedings of the Physiology Society* 27. 2012, p. PC322.
- Lakie M, **Vernooij CA**, Reynolds RF. The role of resonance in physiological finger tremor. In: *Proceedings of the Physiology Society* 27. 2012, p. C80.
- **Vernooij CA**, Reynolds RF, Lakie M. A decrease in short-range elastic stiffness causes a drop in physiological finger tremor frequency. In: *Abstracts of the 6th international posture symposium*. 2011, p. 91.
- Lakie M, **Vernooij CA**, Osborne TM, Reynolds RF. Human physiological hand tremor results mainly from resonance which changes during slow voluntary movements. In: *Abstracts of the 6th international posture symposium*. 2011, p. 52.
- **Vernooij CA**, Lakie M. Human tremor size reduces with ischaemia due to decreased EMG to muscle gain. In: *Proceedings of the Physiology Society* 23. 2011, p. PC297.