



NSWO & SVNL present the 2024 Fall symposium: *'Hack your sleep'*

Friday, November 29, 2024, at TU/e, Auditorium, De Zaale, Eindhoven.

🔥 **Keynote by Prof. Jean Louis Pépin, Université Grenoble Alpes, France.**

👍 Excellent accessibility: from Eindhoven Central station 10 minutes by foot. By car: large parking space on the campus. Parking fees are €10 per 24 hour or €2/hour.

😊 Accredited for medical specialists.

😊 Free entrance for NSWO and SVNL members.

👉 **Subscription:** <https://forms.gle/koBzXQ3zPFsbA19C8>. **Submit your abstract** for poster presentation, blitz, talk: <https://forms.gle/jnTxVLVKqYZSXnu68>. Deadlines: Nov. 5!

Scientific program:

- 09.30-10.30 **Poster-Viewing**
NSWO: General assembly (ALV, for NSWO members)
- 10.30 **Welcome**
- 10.35-10.50 ⚡ **Poster Blitz** (short pitches selected from submitted abstracts)
- 10.50 - 11.25 **Targeted memory reactivation to augment treatment in post-traumatic stress disorder**
Dr. Hein van Marle, Amsterdam University Medical Center (AUMC).

Can you treat traumatic memories during sleep? Using slow oscillation phase-locked targeted memory reactivation we provided first proof of concept that you can.

11.25 - 12.00 **On the EEG aperiodic slope as a readout of vigilance state and a target for its manipulation.**

Dr. Henry Hebron, Netherlands Institute for Neuroscience, Amsterdam.

Approaches to neuromodulation often focus on rhythmic patterns of activity in the EEG, using periodic stimuli to entrain periodic oscillations of a particular frequency, however the characteristics of these oscillations vary wildly with brain state and present something of a “moving target” for brain stimulation. Here, I demonstrate across several different contexts that the aperiodic component of the EEG may serve as a more comprehensive readout of the state of the brain, and indeed an attractive target for its manipulation.

12.00 - 13.00 🍽️ **Lunch & Poster-Viewing**

SVNL: General assembly (ALV, for SVNL members, with take-away lunch)

13.00 - 13.45 🗨️ **Agree to disagree in sleep staging; from majority vote to hypnodensity**

Interactive debate: **Dr. Pedro Fonseca, Prof. Sebastiaan Overeem, and Dr. Merel van Gilst**

Is inter- and intra-rater disagreement a limitation of sleep staging or does it contain information? We will present the hypnodensity representation and discuss the possible applications of this probability-based sleep representation in research and the sleep clinic.

13.45 - 14.20 **Sleep measurement in premature babies**

Dr. Jeroen Dudink, University Medical Center Utrecht (UMCU)

14.20 - 14.55 **Sleep in elite athletes and shift work**

Dr. Myrthe Boss, Ziekenhuis Gelderse Vallei, Ede.

Sleep is important for performance in elite athletes and shift workers, however sleep is also vulnerable. In this presentation, I will discuss interventions that ‘hack sleep’ to improve performance in both groups.

14.55 - 15.20 ☕ **Break with refreshments**

15.20 - 15.55 **Early career presentations** (selected from submitted abstracts)

15.55 - 16.15 🏆 **Poster and thesis awards and presentation**

16.15 - 17.00 **New techniques to measure mandibular movements in sleep apnea diagnosis and treatment pathways**

🔥 **Keynote: Prof. Jean Louis Pépin**, Université Grenoble Alpes, Grenoble, France.

Mandibular movement signal is summarizing the information needed to characterize sleep apnea severity and response to treatment

17.00 🍷 **Drinks & networking**