

EMMA PETERS



CONTACT

- ✉ emma.peters@unibe.ch
- 🌐 <https://orcid.org/0000-0003-3612-0365>
- 🌐 <https://www.linkedin.com/in/emmapeters2>
- 🌐 www.emma-peters.com

PROFILE

I am a creative and passionate researcher at the University of Bern, specializing in dream engineering and sleep stimulation from an embodied perspective. I aim to bridge sleep, sensory stimulation, virtual reality, and consciousness into creative and innovative dream engineering and consciousness research.

ACADEMIC EMPLOYMENT

Research Associate

University of Bern, Switzerland

- Employing virtual reality and sleep wearables for education and research

feb 2026 - june 2026

Lecturer

University of Bern, Switzerland

- Developing and teaching a brand new bachelor level 5 ECTS course: 'The Science of Dreaming'.

sep 2024 - june 2025

PhD Candidate

University of Bern, Switzerland

- Lucid dream induction and dream engineering using an embodied perspective

feb 2022 - jan 2026

Research Assistant

Donders Institute for Brain, Cognition and Behaviour, Sleep and Memory Lab, Nijmegen, the Netherlands

oct 2019 - feb 2020

Internship Trainee

Donders Institute for Brain, Cognition and Behaviour, Sleep and Memory Lab, Nijmegen, the Netherlands

sep 2020 - dec 2021
aug 2018 - feb 2019

EDUCATION

PhD Neuroscience of Dreaming

University of Bern: summa cum laude

Feb 2022 - Jan 2026

MSc Cognitive Neuroscience

Radboud University: Plasticity and Memory track

Sept 2019 - Aug 2021

BSc Medical Biology

Radboud University, Nijmegen, the Netherlands

Sept 2015 - July 2019

SKILLS

Experimental Design and Research Methodology
Polysomnography (PSG) Acquisition and Analysis
Sleep Scoring and Sleep Data Interpretation: eeglab
Sleep Wearable Technologies and Data Integration
Galvanic Vestibular Stimulation (GVS)
Electrical Muscle Stimulation (EMS)
Data Collection, Processing, and Management
Laboratory Operations and Project Management
Programming: MATLAB, and Python
Curriculum Development and University-Level Teaching
BSc and MSc Thesis Supervision and Mentorship
Grant Writing and Research Funding Applications
Scientific Writing and Communication

LANGUAGES

- Dutch: Native
- English: C2 (fluent)
- German: B2 (upper intermediate)
- French: B1 (intermediate)

SELECTED PUBLICATIONS

Published

- Krugliakova, E., et al. (2025).** Hacking the functions of sleep: Non-invasive approaches to stimulate sleep neurophysiology. *Physiological Reviews*.
- Peters, E., et al. (2025).** Juggling the Limits of Lucidity: Searching for Cognitive Constraints in Lucid Dream Motor Practice: 4 Case Reports. *Brain Sciences*
- Peters, E., Urwyler, L., & Erlacher, D. (2025).** Shifting body perception: How amputation alters dream imagery. *International Journal of Dream Research*
- Peters, E., Kummer, L., & Erlacher, D. (2024).** Two-way communication in lucid dreaming using Electrical Muscle Stimulation. *International Journal of Dream Research*
- Peters, E., et al. (2024).** Sounds of lucidity: Auditory stimulation for triggering reality checks in lucid dream induction. *Dreaming*
- Peters, E., et al. (2023).** Using hypnotic enhancement with auditory suggestion for lucid dream induction. *Somnologie*
- Peters, E., et al. (2023).** Extending mental practice to sleep: Enhancing motor skills through lucid dreaming. *Medical Hypotheses*
- Gott, J., et al. (2021).** Virtual reality training of lucid dreaming. *Philosophical Transactions of the Royal Society B: Biological Sciences*,
- Gott, J., et al. (2020).** Sleep fragmentation and lucid dreaming. *Consciousness and Cognition*

Preprint and Manuscripts

- Wang, X., et al. (in production).** EEG Microstates reveal distinct network dynamics in lucid and non-lucid REM sleep. *Consciousness and Cognition*.
- Peters, E., et al. (preprint, 2026).** Balancing Lucidity: Muscle and Vestibular Stimulation for Lucid Dream Induction.
- Peters, E., et al. (under review).** Waking Up in the Dream Lab: Lucidity through Laboratory Dreaming and Virtual Reality. *iScience*.
- Peters, E., et al. (under review).** Investigating the transfer of physical stimuli to the dreamed body: A comparative study of muscular, vestibular, and haptic stimulation on dream incorporation. *PLOS ONE*.
- Peters, E., et al. (in production).** Lucid Dreaming. In M. H. Kryger, T. Roth, & C. A. Goldstein (Eds.), *Principles and Practice of Sleep Medicine* (8th ed.). Elsevier.
- Bonamino, C., & Peters, E. (under review).** Lucid dream control: Mechanisms, challenges, and future directions. *Journal of Sleep Research*

ACHIEVEMENTS AND AWARDS

- University of Bern, Digitalization Grant 2025
- Mapping the Dream World: Digital Tools for At-Home Sleep and VR Research
- Swiss Government Excellence Scholarship for Foreign Scholars and Artists 2021
- Offer declined
- Swiss National Science Foundation Grant 2021
- The Embodied Dreaming Project - Linking Body Stimulation and Virtual Reality Training to Lucid Dreaming
 - Contributing researcher: developed study design, conceptual framework, and contributed to proposal writing.
- Poster Prize Nominee 2025
- Deutsche Gesellschaft für Schlafforschung und Schlafmedizin (DGSM), Hannover, Germany
- Assessing Dream Control: Development of Two Brand New Lucid Dream Control Questionnaires.*

RESEARCH DEVELOPMENT

- 1.5-week Research visit, Neuropsychiatry of sleep and dreams, Department of Basic Neurosciences, Department of Psychiatry, Geneva University, Switzerland May 2025
- 3-week Research visit, The Dream & Nightmare Laboratory, Sacré-Coeur Hospital, Montreal, Canada June 2023

TEACHING EXPERIENCE

- Guest Lecture: *The Science of Dreaming*, (50+ students), Trent University, Toronto, Canada 2025
- Main Lecturer and Developer 5ECTS Bachelor Course: *The Science of Dreaming*, (30+ students) Institute for Sports Science, University of Bern, Switzerland 2024
- Teaching Assistant and Lecturer Bachelor Seminar *Sport und Schlaf*: (30+ students) Institute for Sports Science, University of Bern, Switzerland 2022-current
- Sleep Scoring Workshop Bachelor Seminar *Sport und Schlaf*, (30+ students) Institute for Sports Science, University of Bern, Switzerland 2022

CONFERENCE ACTIVITIES

Invited talks

- 2026 *The Science of Dreaming*, the Neuroclub, University of Bern, Bern, Switzerland
- 2024 *Non-invasive lucid dream induction techniques in the sleep lab*, Summer School of Dreaming, Netherlands Institute for Neuroscience and Donders Institute for Brain, Cognition and Behaviour, Nijmegen, the Netherlands
- 2023 *Effects of Multisensory Stimulation on Embodied Dreaming*, Dream x Engineering Seminar, MIT Media Laboratory, online

Selected Conference Presentations

- 2025 *Dreaming of the Sleep Lab Virtual Reality and Vibration Stimulation for Lucid Dream Induction*, Deutsche Gesellschaft für Schlafforschung und Schlafmedizin (DGSM), Hannover, Germany
- 2025 *Lucid Dream Control: Mechanisms, Challenges, and Future Directions*, Lucid Dreaming Symposium Bern, Switzerland
- 2025 *Embodied dreaming: From False Awakenings to Lucid Dreaming: Building Metacognitive Dream Awareness in a Virtual Sleep Lab*, Association for the Scientific Study of Consciousness. Heraklion, Crete
- 2025 *The Dream Lab Effect: Exploring VR and Sensory Cueing for Lucid Dream Induction*, International Association for the Study of Dreams Conference. online
- 2024 *Dream Incorporation of three different stimuli*, Deutsche Gesellschaft für Schlafforschung und Schlafmedizin (DGSM), Essen, Germany
- 2024 *Embodied induction: using muscle and vestibular stimulation for lucid dream induction*, International Association for the Study of Dreams Conference. Kerkrade, the Netherlands

Selected Conference Posters

- 2025 *Assessing Dream Control: Development of Two Brand New Lucid Dream Control Questionnaires*, Deutsche Gesellschaft für Schlafforschung und Schlafmedizin (DGSM), Hannover, Germany
- 2025 *Non-Invasive Stimulation in Sleep: Modulating Dream Experiences*, SSP/SSTS - SSSSC joint annual meeting, poster, Geneva, Switzerland
- 2025 *From Induction to Control: Navigating the Fundamentals of Lucid Dream Therapy*, SSP/SSTS - SSSSC joint annual meeting, poster, Geneva, Switzerland

MEDIA OUTREACH

SRF Impact: 'Luzides Träumen Selbstoptimierung im Schlaf'	14 September 2022
BärnToday: 'Den eigenen Traum kontrollieren Berner Team erforscht Phänomen Lucid Dreaming'	17 March 2024
The Dream World Podcast: 'EP72 Lucid Dream Research Lab in Bern'	17 May 2024
HTWK Leipzig XCam Live TV interview	27 June 2024
The Guardian: 'Linking two realms: efforts to tap real-life potential of lucid dreams advance'	18 August 2024
Newstalk Podcast, Futureproof	24 September 2024
SRF Puls, Online expert team	30 September 2024
Scientific American: 'The New Science of Controlling Lucid Dreams'	17 December 2024
NSWO: Article Series: 'Lucide Dromen; het fenomeen, het onderzoek en de praktijk'	26 June 2025
Popular Mechanics: 'Dream Control Can Help You Train Your Mind'	2 July 2025
Psychologie Magazine: 'Je Dromen Sturen, Hoe Dan?'	December 2025
KIJK Magazine: 'Lucide dromen in het lab.'	Maart 2026
ARD Wissen: 'Mein Körper, Mein Traum.'	TBD
The New Yorker: Lucid Dream Research	TBD

ACADEMIC SERVICE

Ad-hoc reviewer:

PLOS ONE, Scientific Reports, Nature and Science of Sleep, Neuropsychologia, International Journal of Dream Research, Virtual Reality, Dreaming, Journal of Physiological Anthropology, and Psychology of Consciousness

Co-Editor:

Routledge: Handbook of Philosophy and Science of Dreaming

TBD

Conference & Scientific Community Roles:

- 2022-present *Co-Founder and coordinator, Lucid Lab Bern*
- 2025 *Main Organisation. Lucid Dreaming Symposium Bern, Switzerland*
- 2024 *Co-chair. Sleep Symposium, Die Sportwissenschaftliche Gesellschaft der Schweiz (SGS) Conference, Zürich, Switzerland*
- 2024 *Co-chair. 'Non-invasive stimulation in sleep' Symposium, Deutsche Gesellschaft für Schlafforschung und Schlafmedizin (DGSM), Essen, Germany*