

# SEMINAR SERIES

Supported by The Department of Biomechanics and  
The Center for Research in Human Movement Variability (MOVCENTR)



## DIGITAL BIOMARKERS OF MOBILITY IN PARKINSON'S DISEASE: A WEARABLE SENSORS APPROACH

Featuring Dr. Carolin Curtze  
University of Nebraska at Omaha



Friday, Oct. 22 | 12:00 - 1:15 pm | Via Zoom

<https://unomaha.zoom.us/j/92012305734>

### PRESENTATION ABSTRACT

Wireless inertial sensors have become increasingly popular for objective assessment of balance and gait. This novel technology allows to evaluate mobility disability not only in the clinic or a laboratory setting but can be used to continuously monitor functional everyday mobility. However, the salience of the various features that can be extracted from the raw data is poorly understood. This presentation will discuss how disease specific motor biomarkers can be identified and used to evaluate neuromodulation techniques for understanding and treating neurologic conditions such as Parkinson's disease.

### ABOUT DR. CURTZE

Carolin Curtze, PhD, is an Assistant Professor in Biomechanics at UNO. She earned her PhD in Rehabilitation Medicine from the University of Groningen, The Netherlands, exploring the neuromechanics of movement in lower limb amputees. Carolin completed her postdoctoral fellowship in the Department of Neurology at Oregon Health & Science University, studying balance and gait impairments in people with Parkinson's disease. Her overall research goal is to improve everyday functional mobility and prevent falls by investigating the pathophysiology of motor impairments and objectively characterizing them with new technologies.

more info at [cobre.unomaha.edu](http://cobre.unomaha.edu)

\*This seminar was supported by the National Institutes of General Medical Sciences of the National Institutes of Health under Award Number P20GM109090 Center for Research in Human Movement Variability. | The University of Nebraska at Omaha shall not discriminate based upon age, race, ethnicity, color, national origin, gender/identity, sex, pregnancy, disability, sexual orientation, genetic information, veteran's status, marital status, religion, or political affiliation.

UNIVERSITY OF  
**Nebraska**  
Omaha

