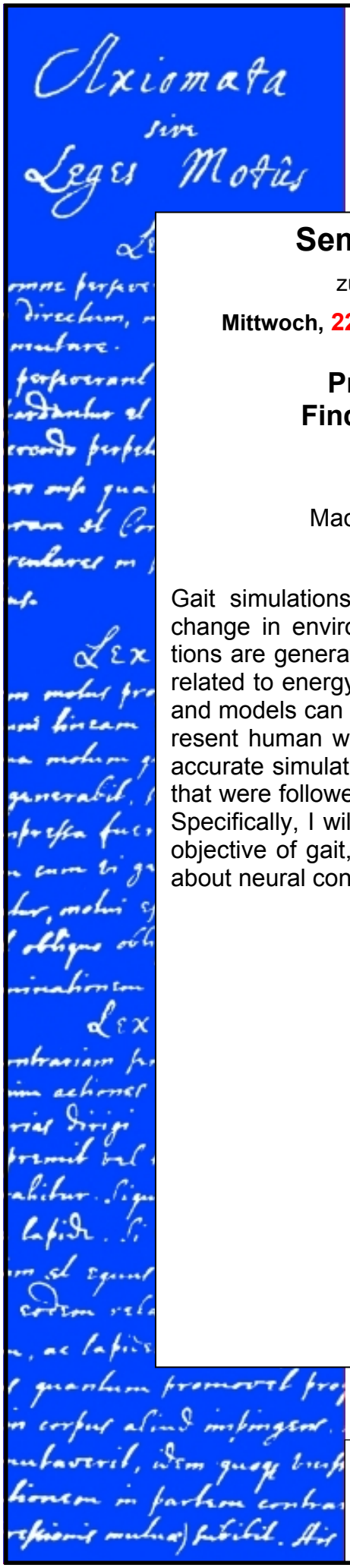

FRIEDRICH-ALEXANDER UNIVERSITÄT ERLANGEN-NÜRNBERG
TECHNISCHE FAKULTÄT

Seminar über Fragen der Mechanik

zu folgendem Vortrag wird herzlich eingeladen

Mittwoch, 22.01.2020, 10:00 Uhr, Immerwahrstr. 1, Raum 01.025

Predictive Movement Simulations – Finding the Holy Grail of Biomechanics

Prof. Dr. Anne Koelewijn
Machine Learning and Data Analytics Lab, FAU

Gait simulations have been used recently to predict the effect of a change in environment on gait kinetics and kinematics. These simulations are generated using the fact that humans minimize some objective related to energy. However, the exact objective that is used is unknown, and models can be inaccurate. Therefore, simulations do not exactly represent human walking or running, and reference data is used to create accurate simulations. In this presentation, I will talk about different paths that were followed recently to improve simulations of human movements. Specifically, I will talk about a comparison between energy and effort as objective of gait, about the need to model uncertainty in dynamics, and about neural control in perturbed standing.

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