

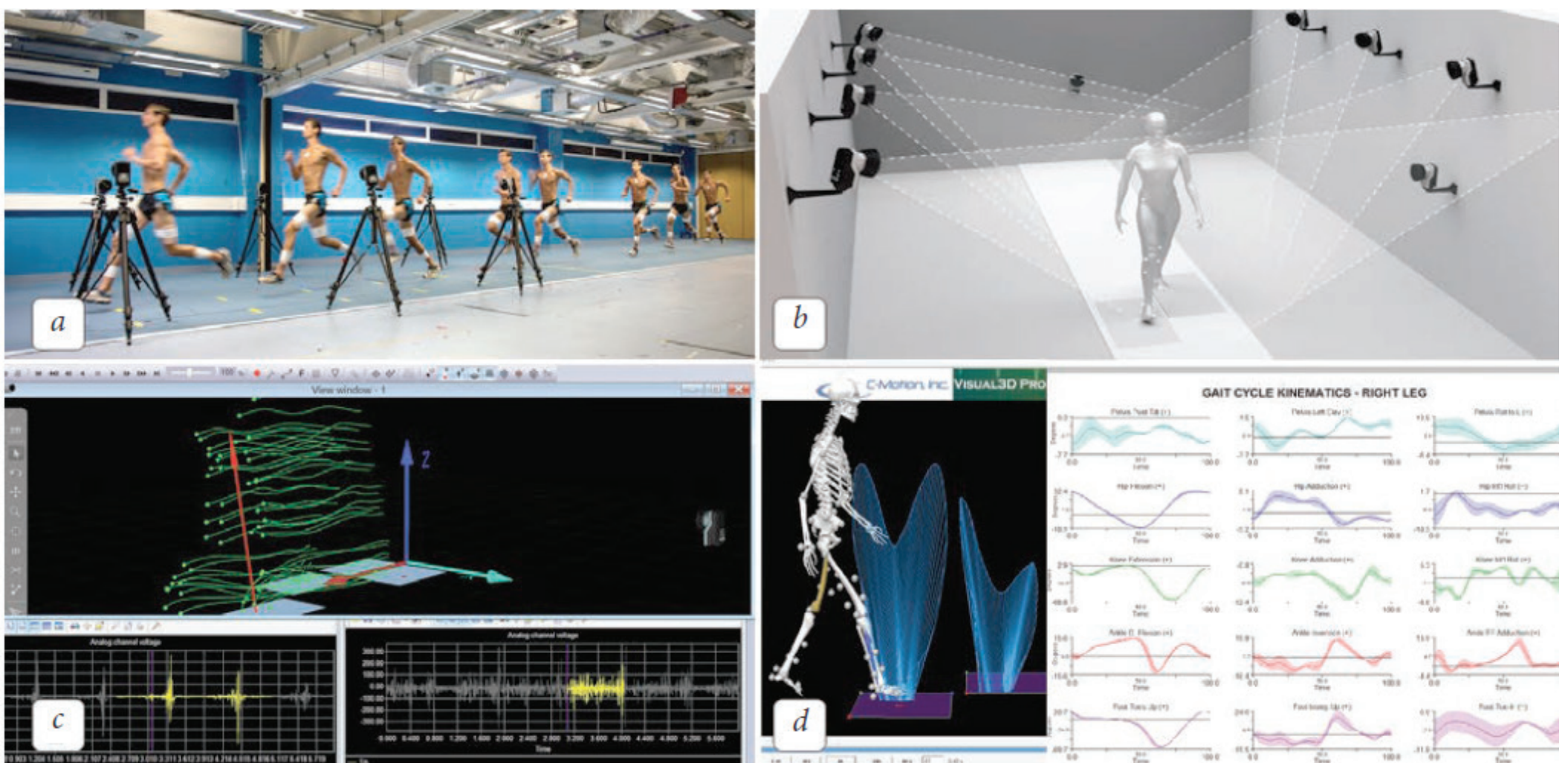
Modeling and simulation of the musculoskeletal systems to explore the mechanics of pathological gait patterns: How close are we to the reality?



Prof. Dr. Yunus Ziya ARSLAN

Institut für Sport und Sportwissenschaft, Geb. 40.40
Donnerstag, 22.11.2018, 17:30–19:00 Uhr, Hörsaal

INSTITUT FÜR SPORT UND SPORTWISSENSCHAFT



Summary of the talk

Various computational methods have been developed to simulate the movement patterns of musculoskeletal systems and predict individual muscle forces by which we can gain insight into the mechanics of pathological gait patterns caused by various neuromusculoskeletal diseases. However, these techniques have yet to be validated against direct measurements of muscle forces and there is a continuous debate on the reliability of such computational approaches. In this lecture, Dr. Yunus Ziya ARSLAN will present his theoretical considerations regarding the use of computational musculoskeletal modeling and simulation tools in understanding the gait pathologies as well as his experimental considerations on the reliability of the computational approaches.