

REFRAME WORKSHOP

NOV 28, 2025

10 AM - 12:30 PM

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<https://ethz.zoom.us/j/65950534899>

SPEAKERS



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BACKGROUND

Kinematic analysis involves calculating signals from optical or inertial datapoints to represent the relative movement of joint segments. The exact choice of local segment frame orientation and position in a bone segment has been shown to drastically influence the shape and magnitude of the associated kinematic signals, making the consistent interpretation of the underlying joint motion a challenge. Despite ISB recommendations aiming to standardise the reporting of these signals, a lack of consensus around joint coordinate frame definitions remains. An approach capable of accommodating different analytical methods and ultimately reconciling these differences in frame alignment, while ensuring consistent interpretations, is therefore crucial.

In this workshop, we present REFRAME (REference FRame Alignment MEthod), an approach to minimise the effect of cross-talk between axes of a movement, and thereby provide kinematic patterns that can be more reliably compared without requiring direct knowledge of the relative poses of the different segment frames. In this manner, REFRAME facilitates the consistent interpretation and comparison of joint kinematics derived using different approaches.

10 AM - 11 AM

INTRODUCTORY LECTURE

10 MIN

BREAK

11:10 AM - 12:30 PM

HANDS-ON WORKSHOP

*PLEASE REGISTER
MIN. 2 WORKING
DAYS IN ADVANCE
TO ENSURE ACCESS
TO THE WORKSHOP
RESOURCES