

# INFORMATION CAPACITY OF FULL-BODY MOVEMENTS

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## ABSTRACT

We present a novel metric for information capacity of full-body movements where throughput (bits per second) is calculated as mutual information in repeated motor sequences. It is affected by the complexity of movements and the precision with which an actor reproduces them. Computation requires decorrelating co-dependencies of movement features (e.g., wrist and elbow) and temporal alignment of sequences. Human-computer interaction researchers can use the metric as an analysis tool when designing and studying user interfaces. This is joint work with Antti Oulasvirta, Arttu Modig, and Laura Leppanen.