

EINLADUNG

Zeit: Dienstag, 15.12., 16.00 Uhr

Ort: UMIC 025, Mies-van-der-Rohe Strasse 15

Referent: Prof. David J. Fleet, PhD
Department of Computer Science
University of Toronto

Titel: Physics-Based Models for Human Motion Analysis

Abstract:

The recovery and analysis of human motion from video is a key enabling technology for myriad applications (e.g., in man-machine interaction, computer graphics, biomechanics, and biomechanics). Many are confident that the problem will be solved, in part with the help of models for how people move. Current state-of-the-art models are usually learned from human motion capture data, but there are questions about whether such models will work well in unconstrained situations.

In this talk we advocate a new class of models, derived in part from principles of Newtonian dynamics and biomechanics. We describe two examples of such models: The first, inspired by low-dimensional passive-dynamic models of human locomotion, was designed for monocular tracking of walking people. The second uses physical principles to facilitate the inference of human muscle forces and one's interactions with external surfaces.

(Joint work with Marcus Brubaker and Leonid Sigal).

Es laden ein: Die Dozenten der Informatik