Learning-based representations for the perception and planning of motor actions

Initiative: Nachwuchsgruppen an Universitäten (beendet)

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Laufzeit: 1 Jahre

Research of the group addresses learning-based representations of complex body movements in technical and biological systems, focusing on applications with high clinical and technical relevance. Different project areas are: 1) The automatic recognititon and quantification of complex body movements and their pathological changes in order to improve the diagnosis and the monitoring of the treatment of neurological movement disorders. 2) Simulation and modeling of complex body movements and action sequences with well-definded style properties for applications in computer graphics and humanoid robotics. 3) Investigation of the neural representations of complex body movements in perception and action, and the underlying learning processes based on theoretical concepts derived from neural and computational modeling.

Projektbeteiligte

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