

# Characterizing the structure of reaching movements after a stroke for better rehabilitation

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## 1 INTRODUCTION – RESEARCH QUESTION

Rehabilitation is key to sensorimotor recovery after stroke.

Yet, it is still unclear how to tailor the nature and the dose of the therapy to the exact functional deficits of each individual patient.

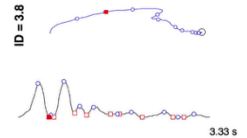
Can characterizing the microstructure of reaching movements in individual patients help better identify their specific functional deficits and thereby optimize personalized rehabilitation strategies?



## 2 AIMS OF THE INTERNSHIP

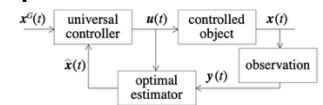
### Monitoring the microstructure of grasping movements

Result: selected **dataset** from stroke patients and healthy



### Calibrating a neuroscientific computational model of sensorimotor control for each patient

Result: personalized model of the microstructure of **post-stroke reaching** movements

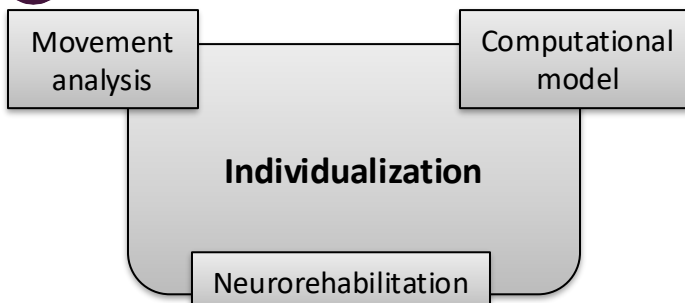


### Interpreting **functional deficits** through a **calibrated** computational model

Result: individualized diagnostic strategy guided by the model



## 3 INTERNSHIP KEY POINTS



## 4 ABOUT SUPERVISION

Mentors are experts in the 3 fields necessary to address the problem

EuroMov  
Digital Health in Motion



### References

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