

Towards a Digital Twin of Human Cognitive Development

Friday 27 September 2024 11:45 (30 minutes)

Human intelligence and human consciousness emerge gradually during the process of cognitive development. Understanding this development is an essential aspect of understanding the human mind and may facilitate the construction of artificial minds with similar abilities. In this talk I will describe our lab's recent efforts to develop a digital twin of the developing human mind and body. To this end, we have created MIMo, the Multimodal Infant Model, an open-source simulation platform for studying early cognitive development through computer simulations. MIMo allows to investigate how cognitive abilities arise from embodied interactions with the physical and social environment. I will describe MIMo's modular design and how it can be used to study the developmental origins of human cognition.

Presenter: TRIESCH, Jochen (Frankfurt Institute for Advanced Studies)

Session Classification: Multiscale Models in Neuroscience (Chair: Hermann Cuntz)