**Introduction**

Walking and running are two distinct gait types in adults. What is it like in children and what constitutes a mature gait pattern?

By using a clustering approach we wanted to classify the degree of gait maturity in children.

**Methods**

Kinematics

GRF

18 participants: 13 children aged 3-9 years old, 5 adults.

Walking and running on a treadmill.

93 kinematic/kinetic factors.

Reduce dimensionality with PCA

Hierarchical clustering.

Degree of maturity as a means of average distance to adults

**Results**

PCA used to remove correlates and reduce dimensionality to three dimensions.

We are clearly able to distinguish walking from running.

Gait maturity is not related to chronological age and a mature walking pattern does not necessarily mean a mature running pattern and vice versa.

We found four clusters: Mature walking, immature walking, mature running and immature running

More info? See our publication here

I am looking for a postdoc position. Do you know of one? Please do not hesitate to contact me!