1. Time series data

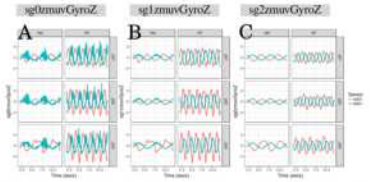


Fig. 6.1 **Time series for horizontal arm movements.** (A) raw-normalised (sg0zmuvGyroZ), (B) normalised-smoothed 1 (sg1zmuvGyroZ) and (C) normalised-smoothed 2 (sg2zmuvGyroZ). Time series are only for three participants (p01, p02, and p03) for horizontal movements in normal and faster velocity (HN, HF) with the normalised GyroZ axis (zmuvGyroZ) and with one sensor attached to the participant (HS01) and other sensor attached to the robot (RS01). R code to reproduce the figure is available at [9].

2. Embedding parameters

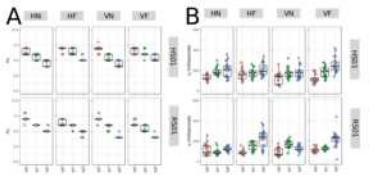
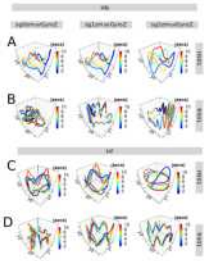
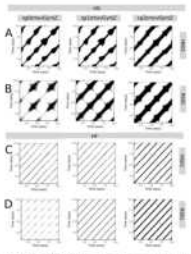


Fig. 6.3 **Box plots of minimum embedding parameters.** Box plots of (A) minimum embedding dimensions and (B) first minimum AMI values for Horizontal Normal (HN), Horizontal Faster (HF), Vertical Normal (VN) and Vertical Faster (VF) with sensors attached to participants (HS01) and sensor attached to robot (RS01). Minimum embedding dimensions (m_0 and τ_0) are for twenty participants (p01 to p20) with three smoothed signals (sg0zmuvGyroZ [sg0] , sg1zmuvGyroZ (sg1) and sg2zmuvGyroZ (sg2)) and window length of 10-sec (500 samples). R code to reproduce the figure is available at [9].

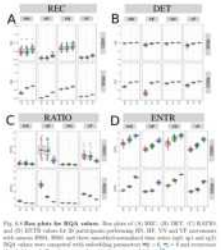
3. Taken''s Theorem



4. Recurrence Plots



5. Recurrence Quantification Analysis



6. 3D surface plots of RQA