

Title: Supplementary Movie 1.

Description: Preprocessing pipeline. Example video sequence showing raw RGB and depth video, detected part affinity fields and body keypoints, 3D alignment and final pre-processed data.

Title: Supplementary Movie 2.

Description: Particle filter behaviour. Example convergence sequence of the multi-body particle filter on a single frame of pre-processed 3D data.

Title: Supplementary Movie 3.

Description: Statespace filtering. Example video sequence showing raw (left side) and state-space filtered (right side) behaviour data.

Title: Supplementary Movie 4.

Description: Social events. Examples of the three types of detected social events: nose-to-nose touch (left), anogenital sniffing by the implanted animal (center), and anogenital sniffing by the partner animals (right).

Title: Supplementary Movie 5.

Description: MousePlayer. Video sequence showing how to launch and use the interactive „MousePlayer“ to play back and inspect pre-processed data and tracked data.

Title: Supplementary Software.

Description: *.zip file containing data recording software code (python), analysis scripts (jupyter notebooks), and associated readme files and step-bystep guides