



Movie 1. A bat performing in the experiment. Labels were placed at the base and at half height of the noseleaf and at half height of the frontal rim of each ear. The upper two panels show a stereo video of the bat. The 3D reconstruction of the four labels is displayed in the bottom-right panel. A movement of the ears is quantified as change in distance between the labels on the bat's ears, a movement of the noseleaf as a change in distance between the two labels on the noseleaf. These distance measures are plotted as a function of time in the two upper graphs to the left (green and black lines). The left bottom panel shows the recording from the microphone placed in front of the bat.