

# Supplemental Material for Generalizing Locomotion Style to New Animals With Inverse Optimal Regression

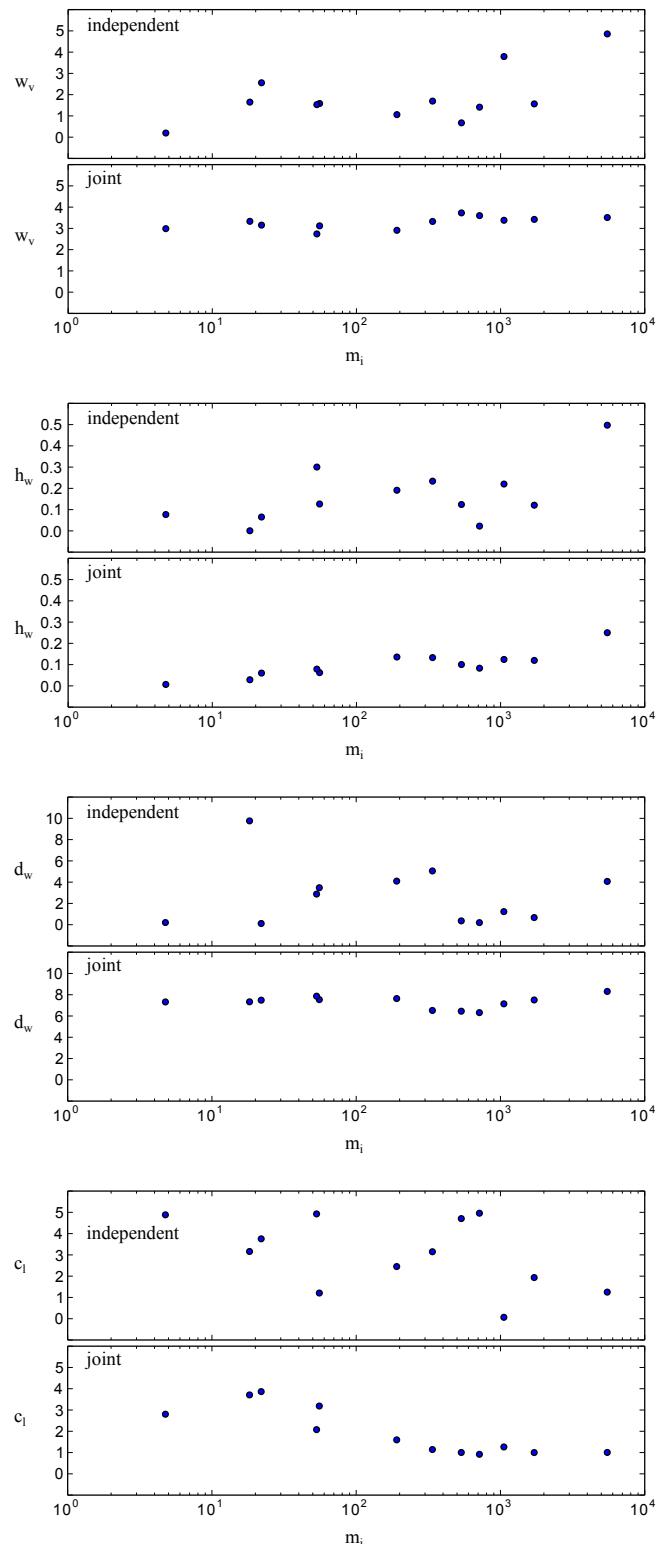
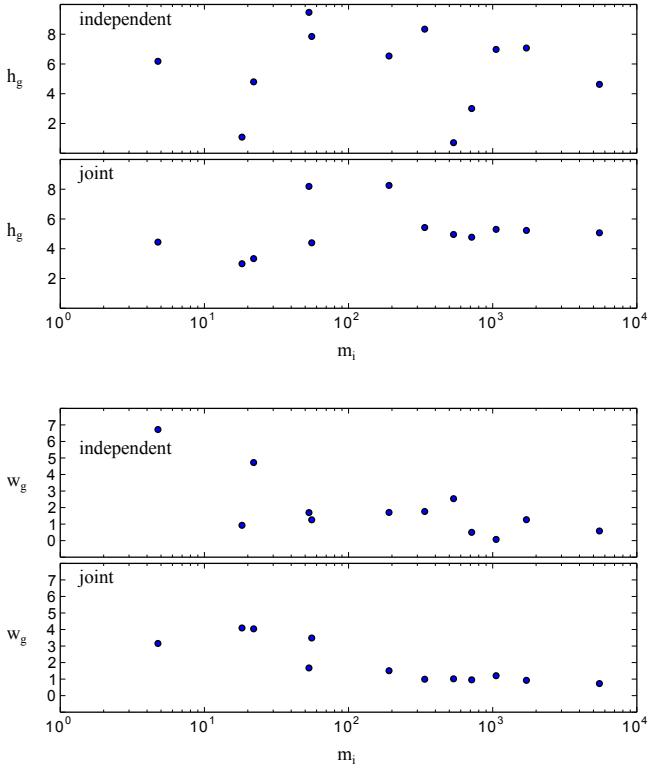
Kevin Wampler\*  
Adobe Research

Zoran Popović†  
University of Washington

Jovan Popović‡  
Adobe Research

## 1 Parameter Plots

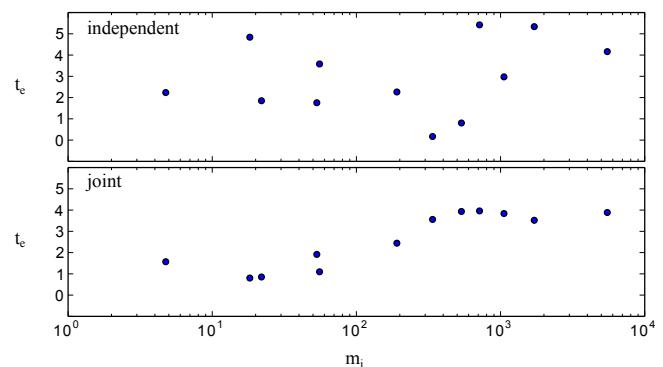
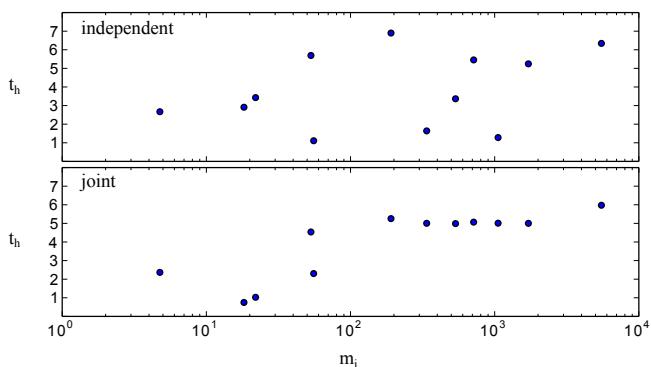
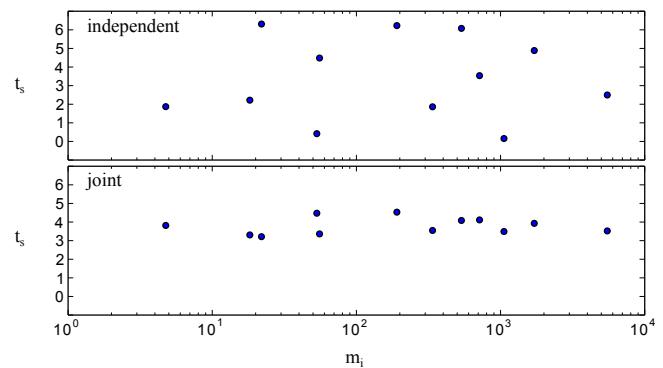
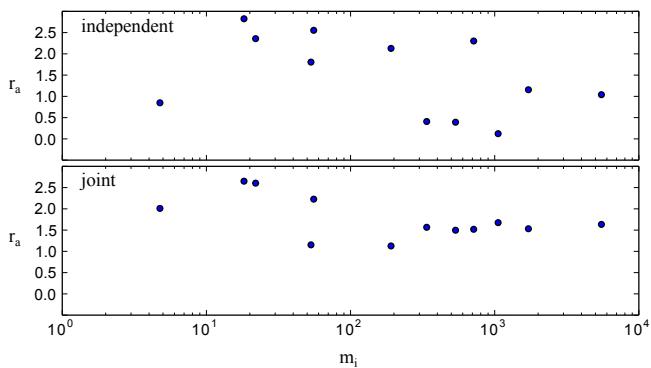
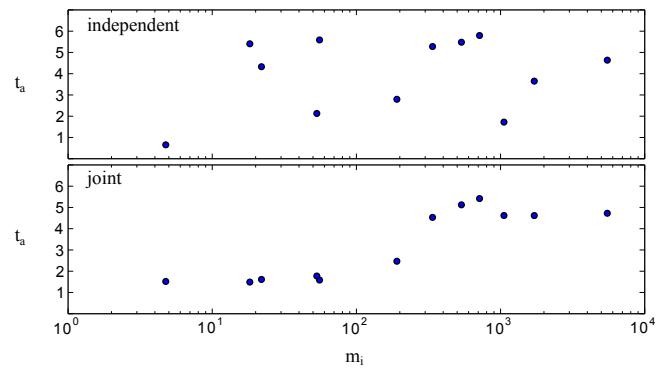
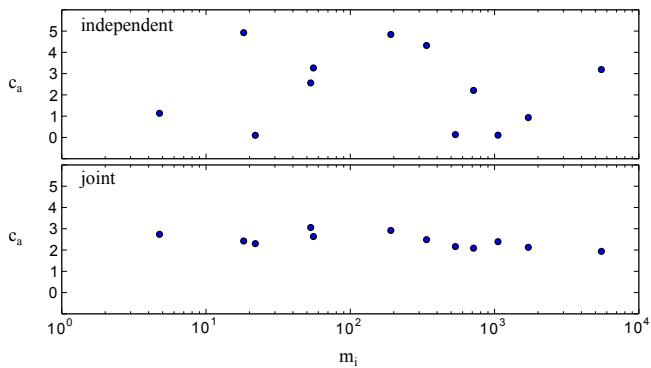
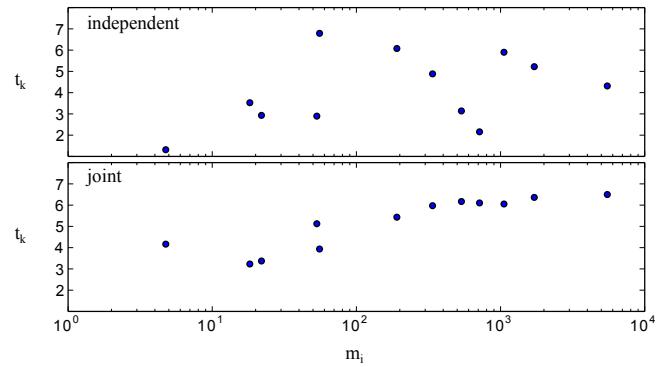
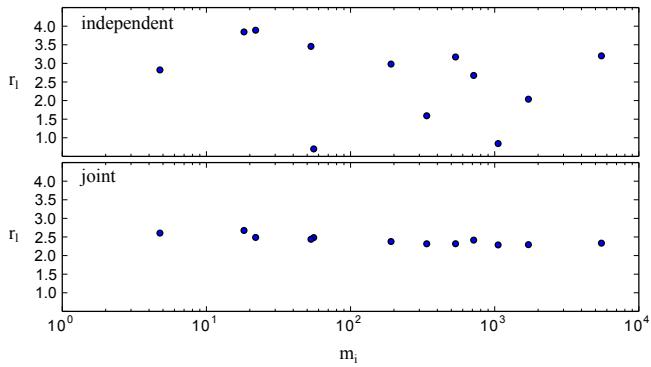
The following plots compare the quadruped inverse parameters found by independent and joint inverse optimization for all of the parameters listed in table 1.

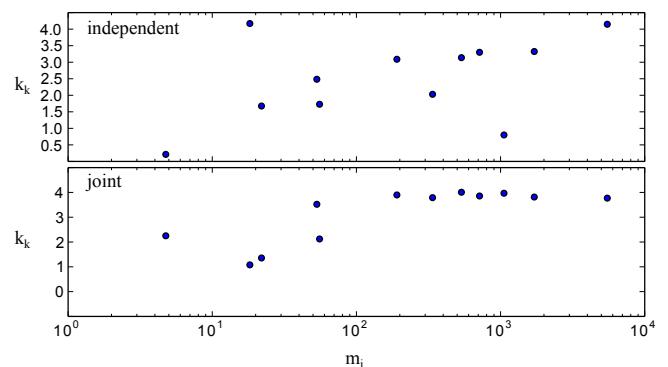
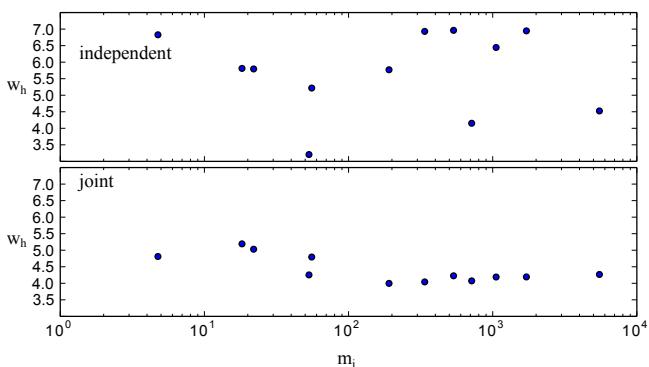
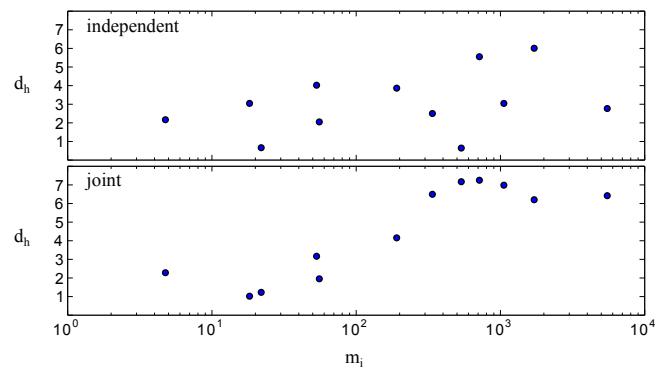
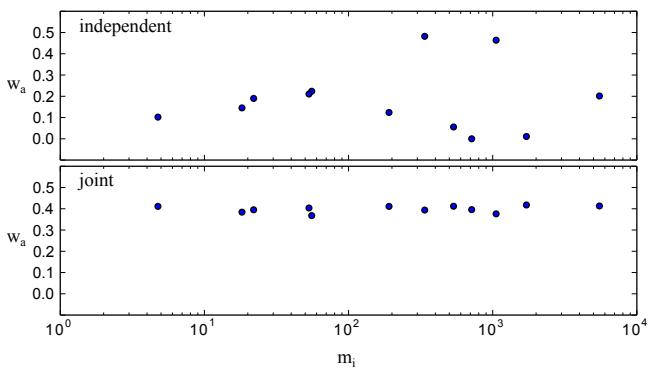
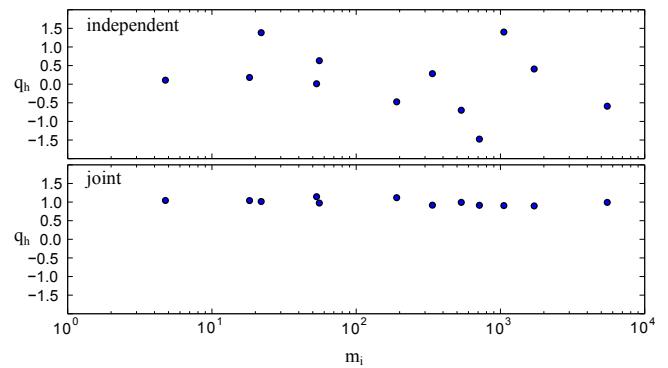
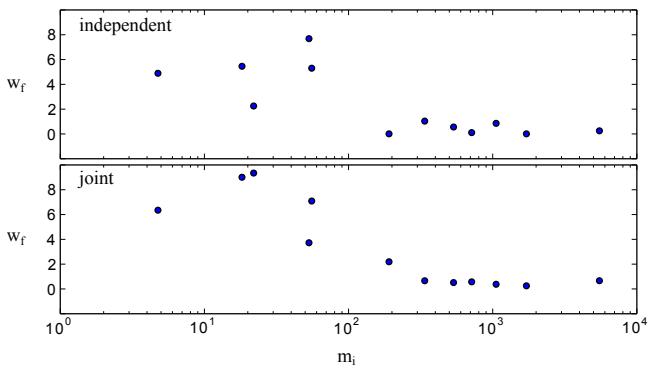
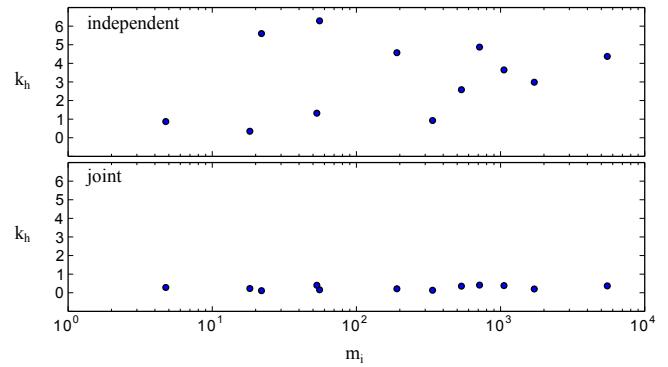
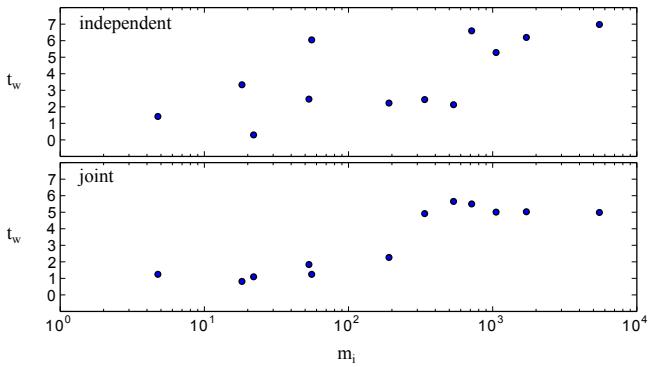


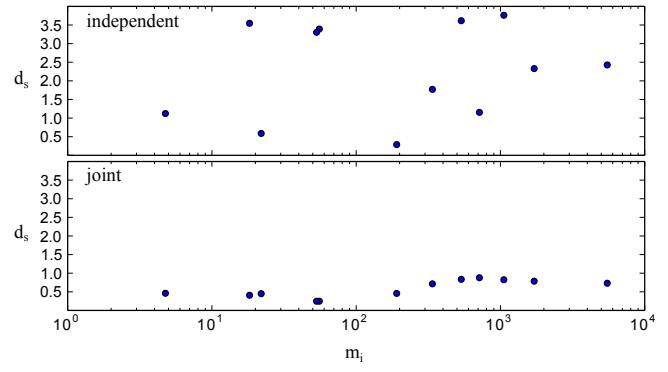
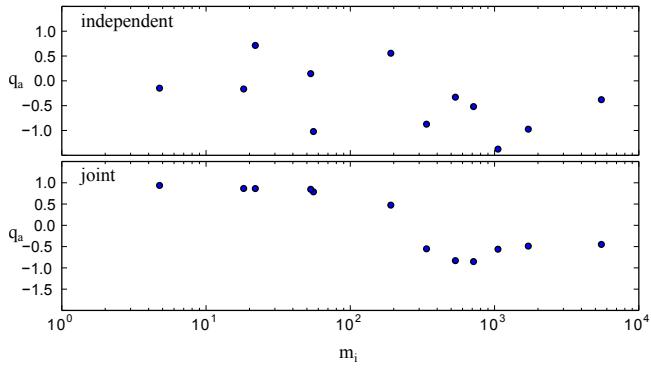
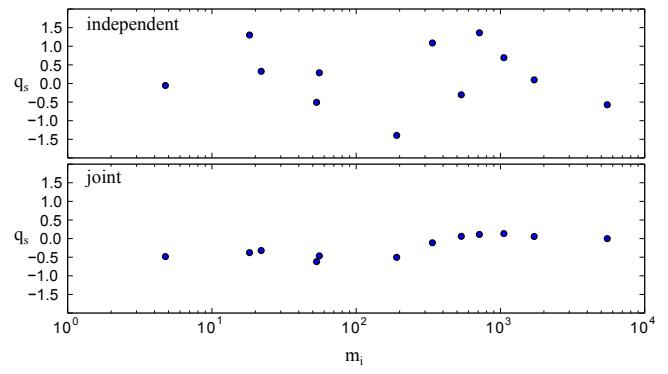
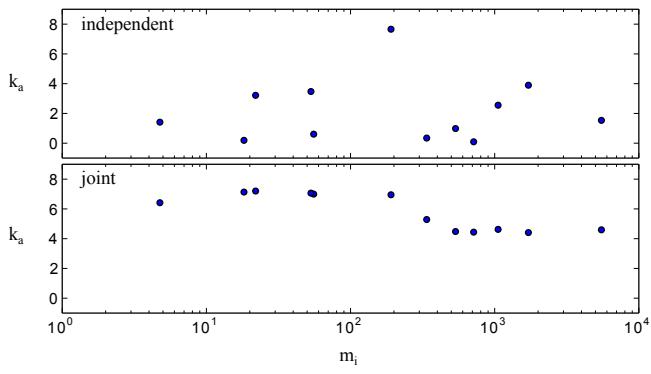
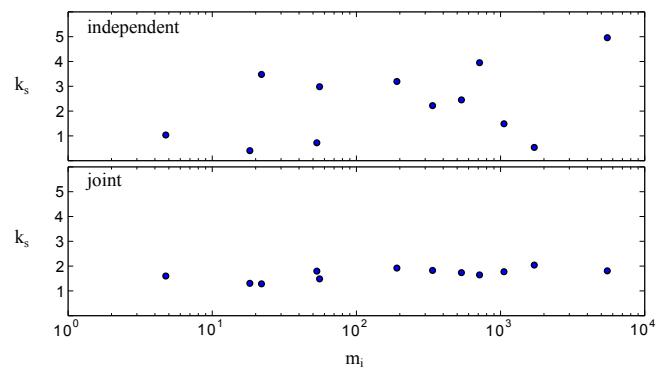
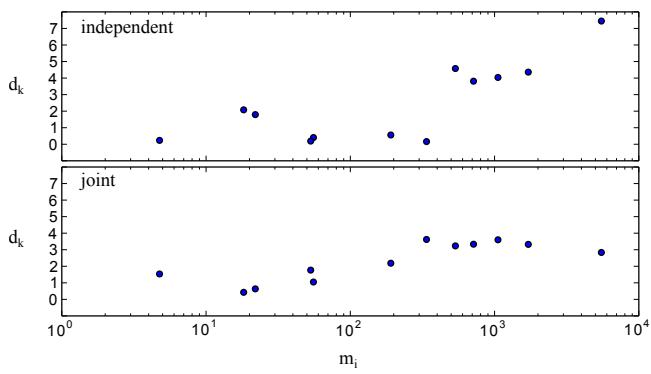
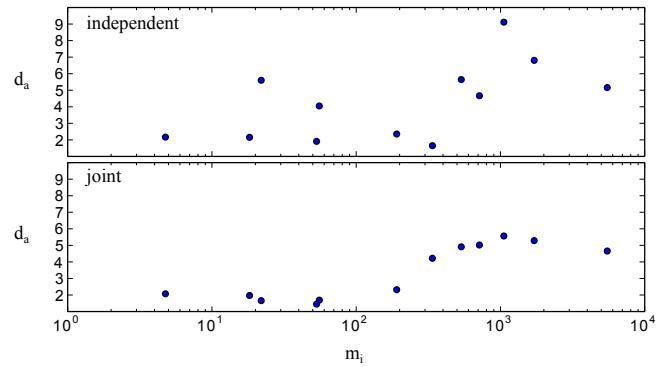
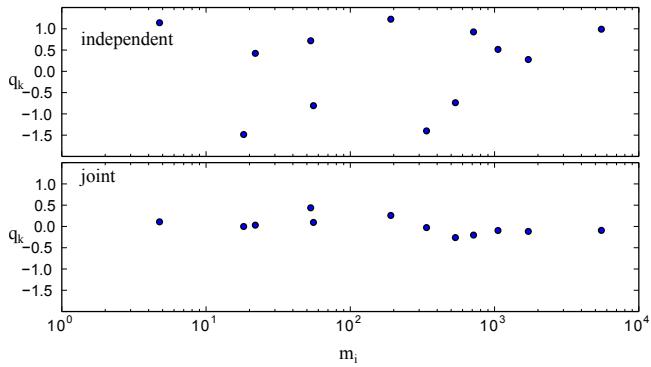
\*e-mail:kwampler@adobe.com

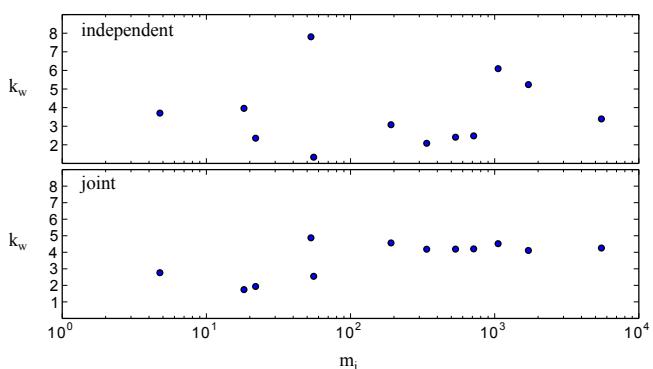
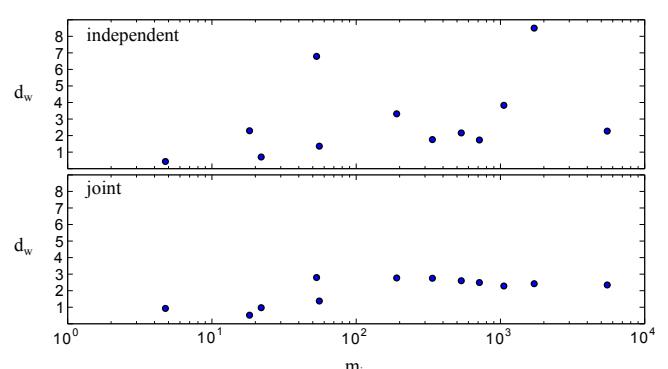
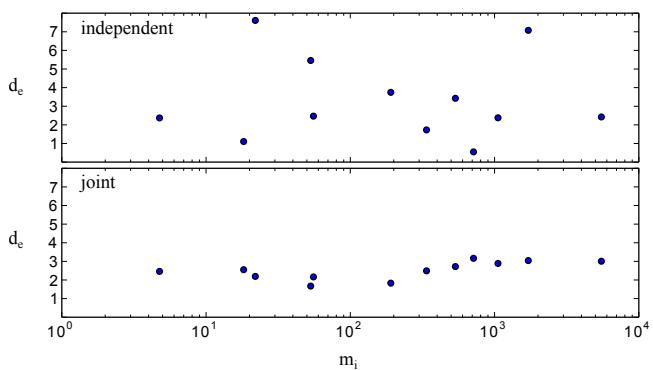
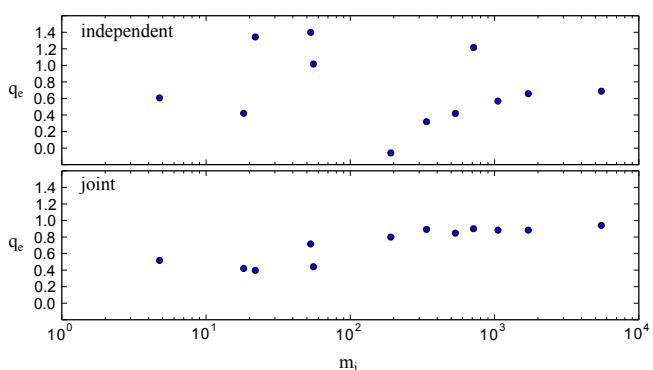
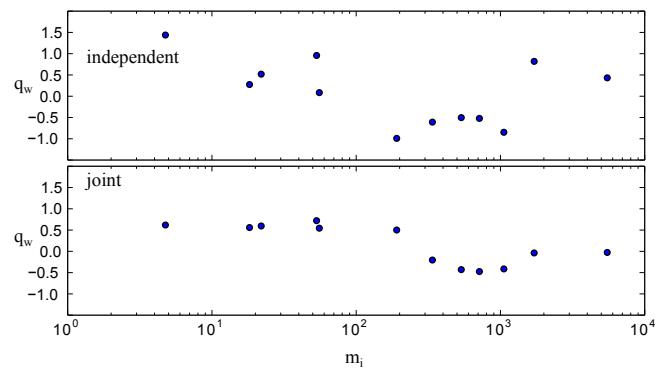
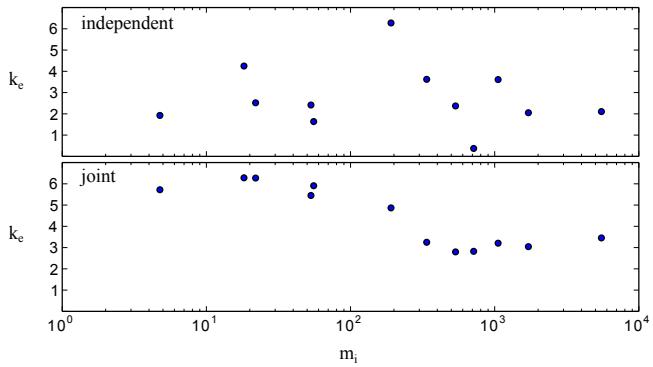
†e-mail:zoran@cs.washington.edu

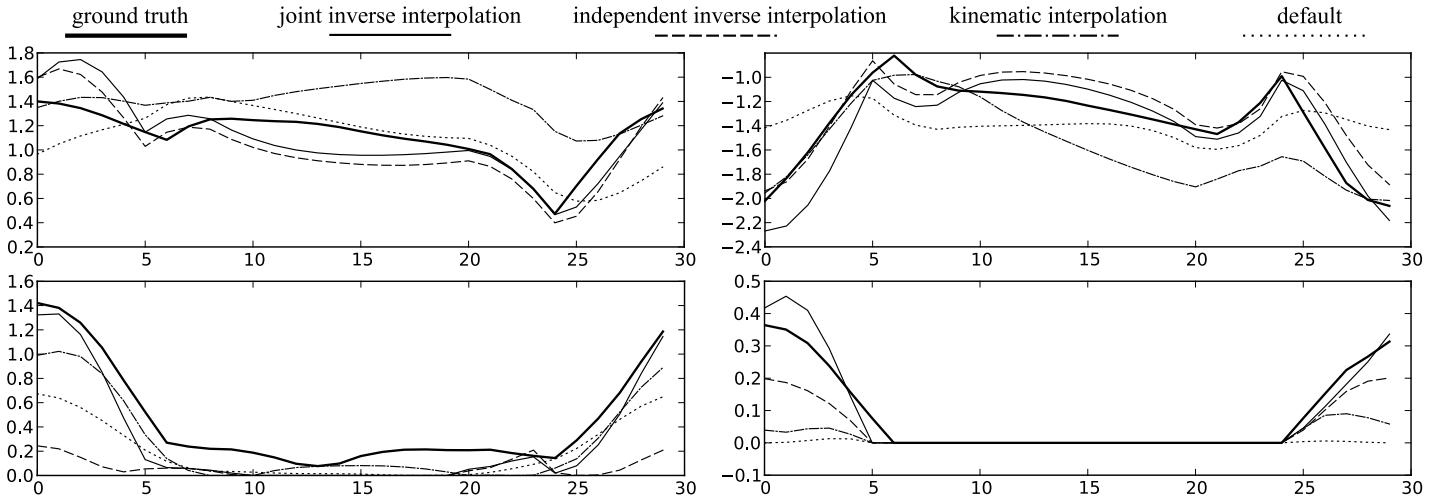
‡e-mail:jovan@adobe.com



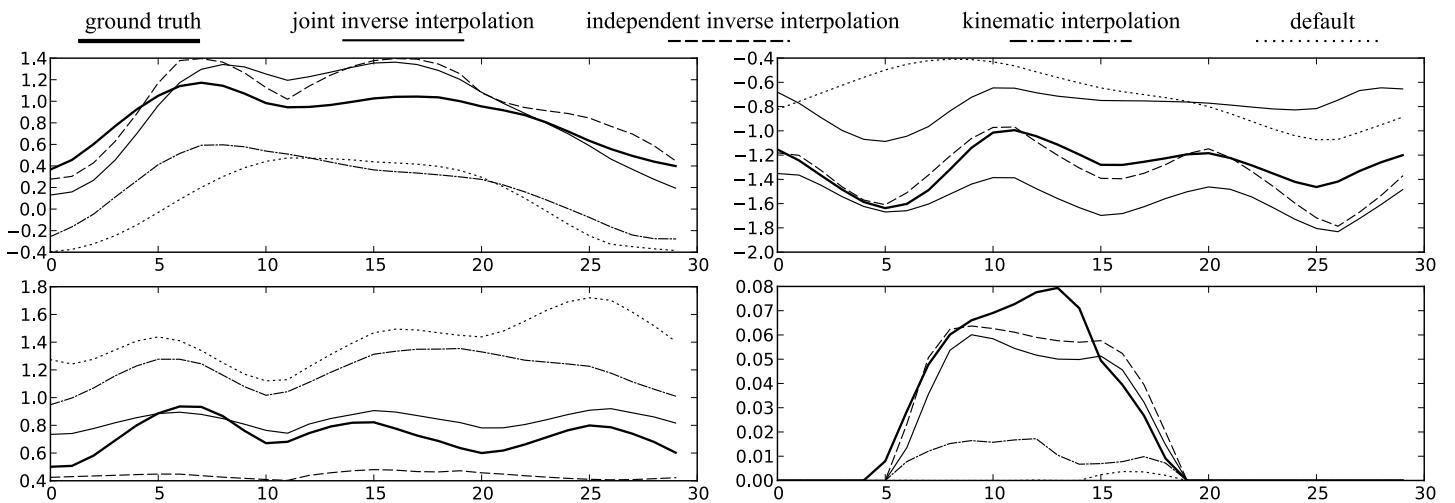




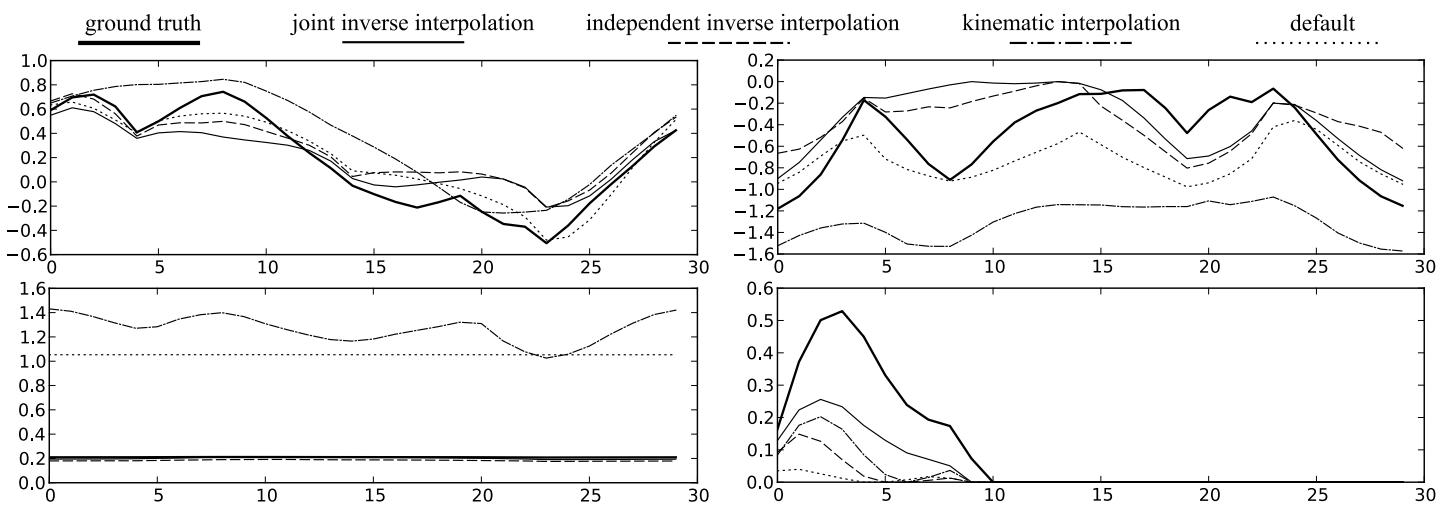




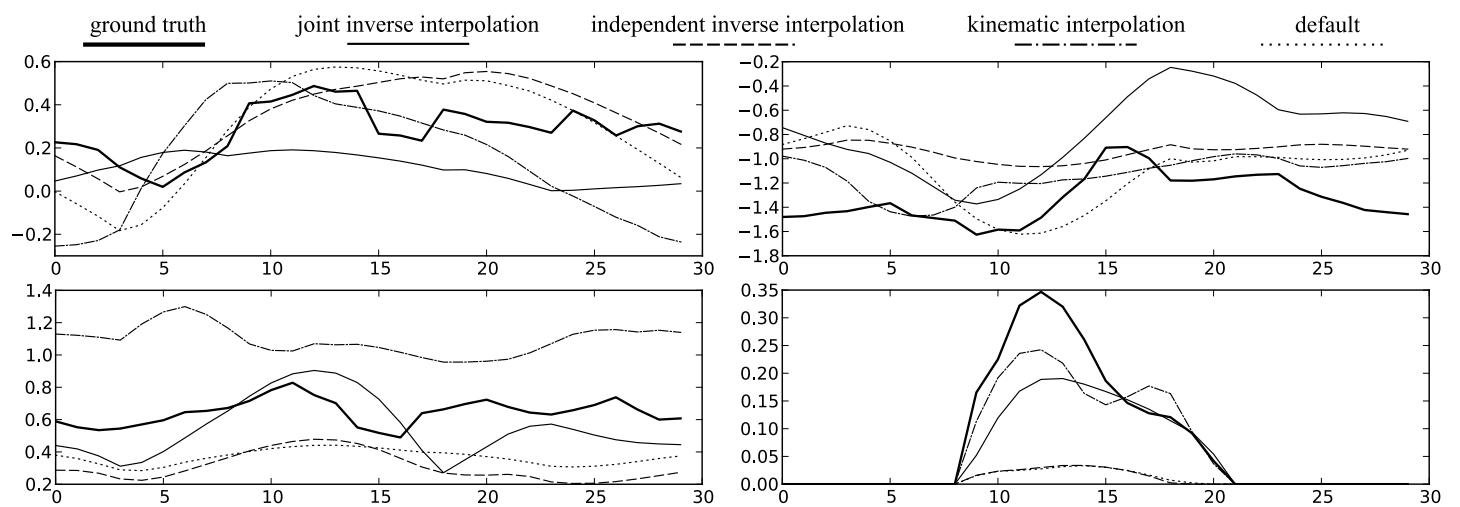
**Figure 1:** From top left to bottom right: plots of the hip angle, knee angle, ankle angle, and foot height over the frames in gaits for an ostrich.



**Figure 2:** From top left to bottom right: plots of the hip angle, knee angle, ankle angle, and foot height over the frames in gaits for a Thomson's gazelle.



**Figure 3:** From top left to bottom right: plots of the hip angle, knee angle, ankle angle, and foot height over the frames in gaits for an elephant.



**Figure 4:** From top left to bottom right: plots of the hip angle, knee angle, ankle angle, and foot height over the frames in gaits for a giraffe.