



**Figure S3.** The positions of the ligament fibers modeled in our dynamic ligament fiber simulation, displayed on a right hip in the pose  $(FE^\circ, ABAD^\circ, LAR^\circ) = (90, 25, 20)$ . Views are: (a) anterolateral, (b) ventral, and (c) posterior. Magenta indicates a fiber of the pubofemoral ligament, cyan indicates a ventral fiber of the ischiofemoral ligament, and orange indicates a caudal fiber of the ischiofemoral ligament.