

Figure 1. The generative shape model of *Drosophila*. (a) The profile curve, denotes by  $\rho$ . (b) The shape  $\Upsilon^3$  is generated by the profile curve  $\rho$  revolving around the *center axis* in 3D space. (c) An image of a fruit fly overlaid by the shape model. The average body length is  $\tilde{l} = 2.73$  mm in our experiments.