



Supplementary Figure S1: Distribution of main estimated parameters on *Sparus aurata* during swim-tunnel trials at different swimming speeds. LEFT: accelerations and fitted Gaussian lines; CENTER-LEFT: tail beat frequency (TBF) observations and fitted Gaussian lines; CENTER-RIGHT: head orientation values (HO) and fitted Gaussian lines (Note that the exact swimming position against the current is in HO = 1.57 rad); RIGHT: head orientation frequency (HOF) and fitted Gaussian lines.