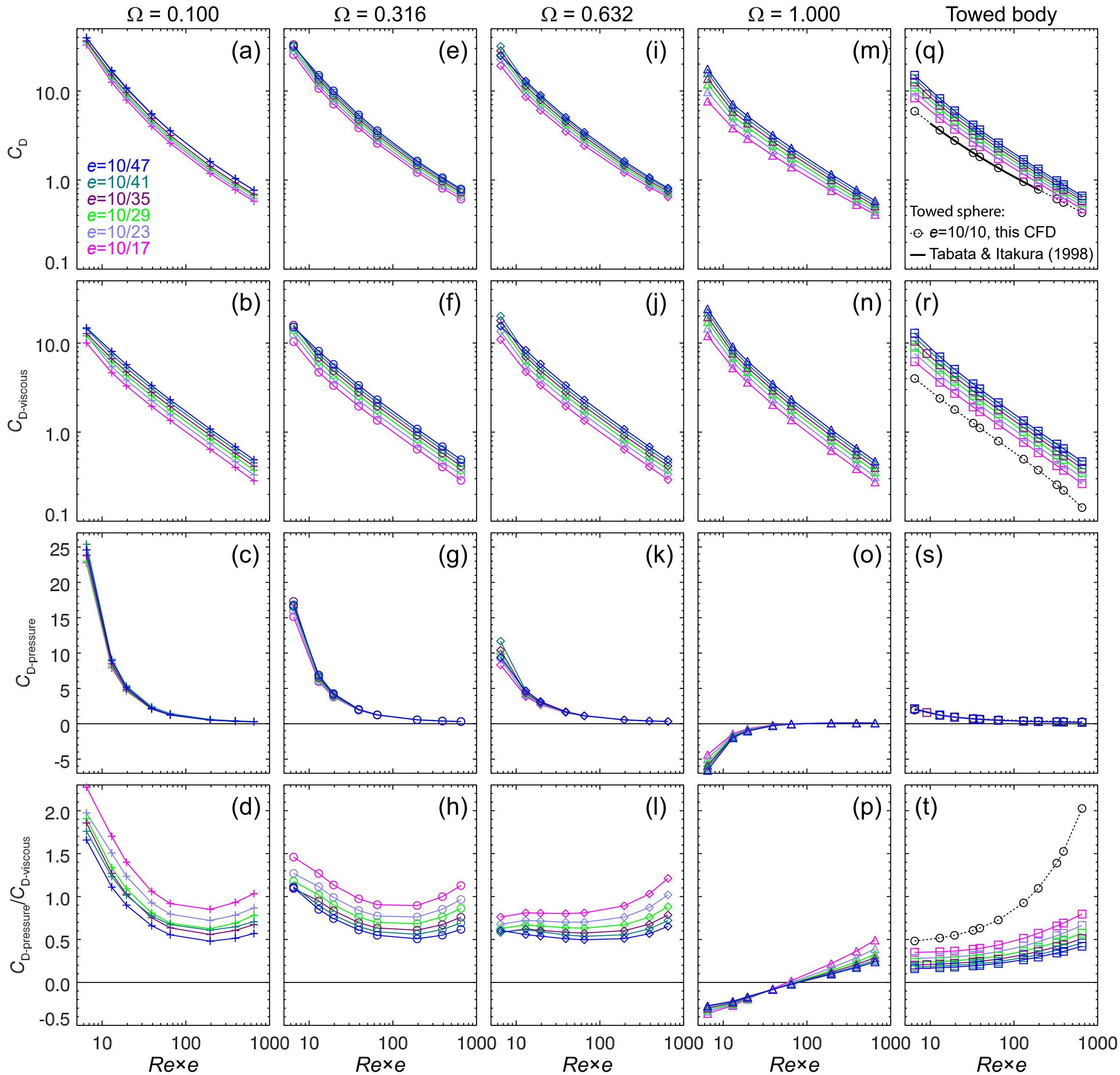

Figure S1. Line plots of C_D, $C_{D\text{-viscous}}$, $C_{D\text{-pressure}}$, and $C_{D\text{-pressure}}$ / $C_{D\text{-viscous}}$ against $Re \times e$, for four groups of six jet-propelled axisymmetric bodies of different body aspect ratios (e; color-coded) combined with four different ratios of jet orifice diameter to body cross-sectional width, i.e., Ω = 0.100 **(a-d)**, Ω = 0.316 **(e-h)**, Ω = 0.632 **(i-l)**, and Ω = 1.000 **(m-p)**, and for a group of six towed axisymmetric bodies of different body aspect ratios (e; color-coded) **(q-t)**. Also, the performance of the CFD simulations is validated by simulating the flow imposed by a steadily towed sphere **(q)**, where the resulted C_D's plotted against $Re \times e$ (where e = 1 for sphere) compare well to those simulated previously by Tabata and Itakura (1998). In **(t)**, as Re decreases, the resulted $C_{D\text{-pressure}}$ / $C_{D\text{-viscous}}$ for the towed sphere approaches 0.5, the value for the Stokes flow around a steadily towed sphere.

Tabata, M.; Itakura, K. A precise computation of drag coefficients of a sphere. *Int. J. Comput. Fluid D.* **1998**, 9, 303-311.

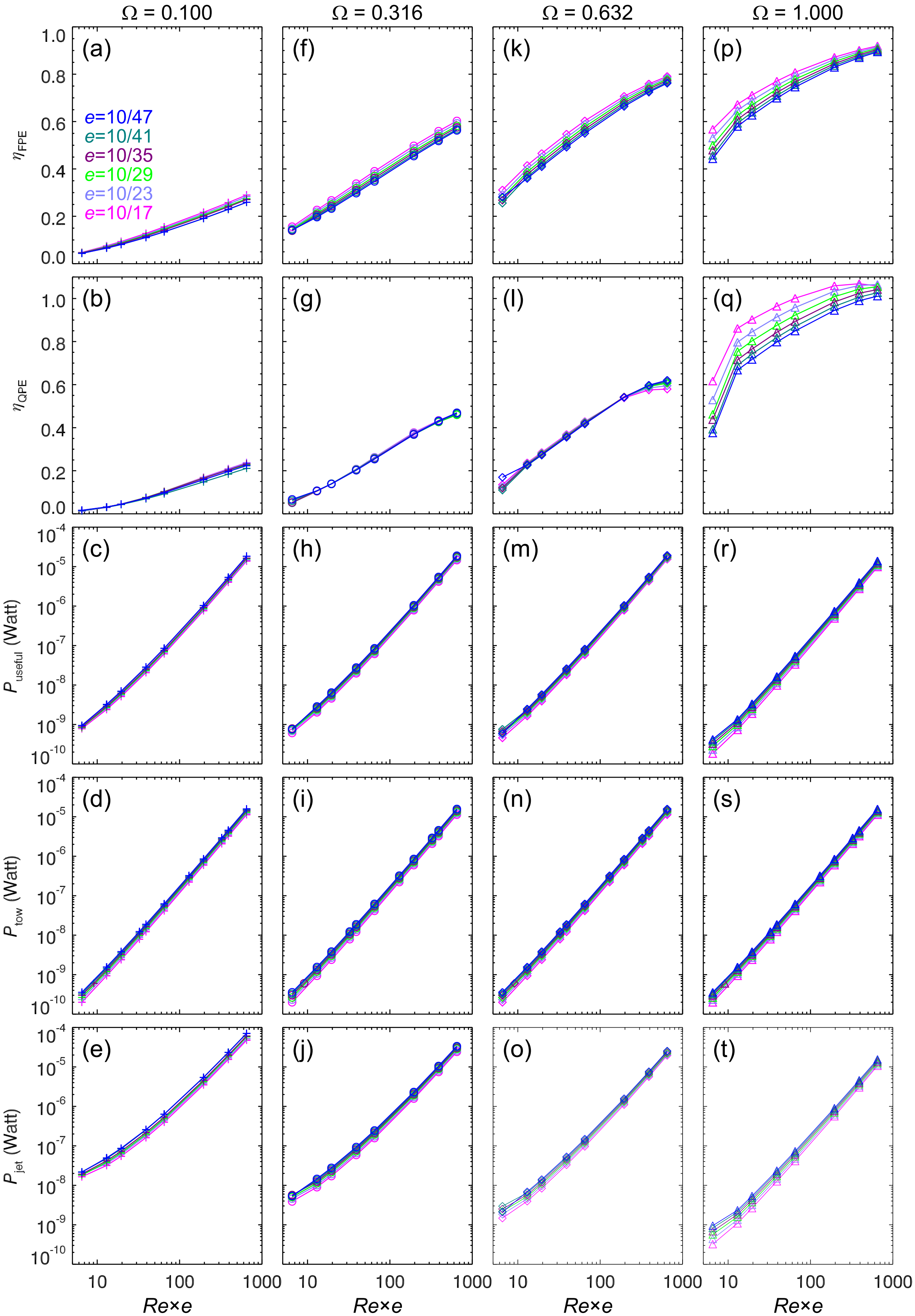

Figure S2. Line plots of η_{FPE} (Froude propulsion efficiency), η_{QPE} (quasi-propulsive efficiency), P_{useful} (useful power), P_{tow} (tow power), and P_{jet} (jet power) against *Re* x *e*, for four groups of six jet-propelled axisymmetric bodies of different body aspect ratios (*e*; color-coded) combined with four different ratios of jet orifice diameter to body cross-sectional width, i.e., Ω = 0.100 **(a-e)**, Ω = 0.316 **(f-j)**, Ω = 0.632 **(k-o)**, and Ω = 1.000 **(p-t)**. Note that **(d)**, **(i)**, **(n)**, and **(s)** are the same except for different plotting markers.

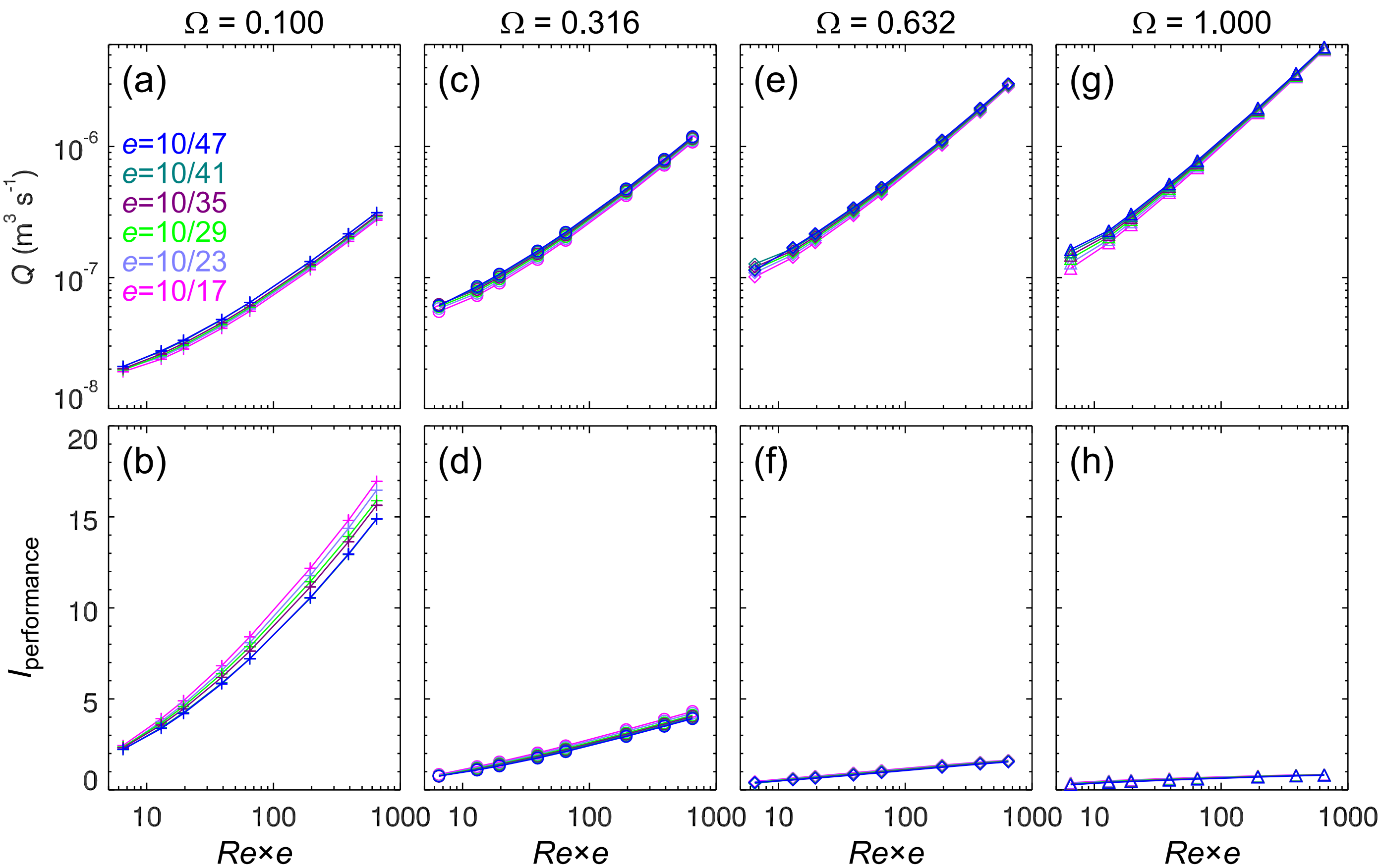

Figure S3. Line plots of *Q* (jet volume flow rate) and $I_{performance}$ (jet-propulsion performance index) against *Re* x *e*, for four groups of six jet-propelled axisymmetric bodies of different body aspect ratios (*e*; color-coded) combined with four different ratios of jet orifice diameter to body cross-sectional width, i.e., Ω = 0.100 **(a, b)**, Ω = 0.316 **(c, d)**, Ω = 0.632 **(e, f)**, and Ω = 1.000 **(g, h)**.