

# Movie Captions

- Movie 1: The transient evolution of the particle distribution  $n(x, t)$  (c.f. figure 2a) and balancing of terms in (5.5) in comparison to their respective local approximation (c.f. figure 3a) in a suspension of spherical and strongly gyrotactic particles ( $\beta = 2.2, \alpha_0 = 0$ ) subjected to a vertical shear flow  $W(x) = -\cos(\pi x) - 1$  with  $Pe_s = 0.25$  and  $Pe_f = 1$ .
- Movie 2: The transient evolution of the particle distribution  $n(x, t)$  (c.f. figure 2b) and balancing of terms in (5.5) in comparison to their respective local approximation (c.f. figure 3b) in a suspension of non-spherical and strongly gyrotactic particles ( $\beta = 2.2, \alpha_0 = 0.31$ ) subjected to a vertical shear flow  $W(x) = -\cos(\pi x) - 1$  with  $Pe_s = 0.25$  and  $Pe_f = 1$ .
- Movie 3: The transient evolution of the particle distribution  $n(x, t)$  (c.f. figure 2c) and balancing of terms in (5.5) in comparison to their respective local approximation (c.f. figure 3c) in a suspension of non-spherical and weakly gyrotactic particles ( $\beta = 0.21, \alpha_0 = 0.31$ ) subjected to a vertical shear flow  $W(x) = -\cos(\pi x) - 1$  with  $Pe_s = 0.25$  and  $Pe_f = 1$ .
- Movie4: The transient evolution of the particle distribution  $n(x, t)$  (c.f. figure 2d) and balancing of terms in (5.5) in comparison to their respective local approximation (c.f. figure 3d) in a suspension of non-spherical and non-gyrotactic particles ( $\beta = 0, \alpha_0 = 0.31$ ) subjected to a vertical shear flow  $W(x) = -\cos(\pi x) - 1$  with  $Pe_s = 0.25$  and  $Pe_f = 1$ .
- Movie 5: The transient evolution of the particle distribution  $n(z, t)$  (c.f. figure 7a) and balancing of the  $z$  components in (6.2) in comparison to their respective local approximation (c.f. figure 8a) in a suspension of non-spherical and strongly gyrotactic particles ( $\beta = 2.2, \alpha_0 = 0.31$ ) subjected to a horizontal shear flow  $U(z) = \cos(\pi z)$  with  $Pe_s = 0.25$  and  $Pe_f = 1$ .
- Movie 6: The transient evolution of the particle distribution  $n(z, t)$  (c.f. figure 7b) and balancing of the  $z$  components in (6.2) in comparison to their respective local approximation (c.f. figure 8b) in a suspension of non-spherical and weakly gyrotactic particles ( $\beta = 0.21, \alpha_0 = 0.31$ ) subjected to a horizontal shear flow  $U(z) = \cos(\pi z)$  with  $Pe_s = 0.25$  and  $Pe_f = 1$ .