Movie 1: Two droplets demonstrating the droplet '*catching-up*' mechanism in laminar shear flow. All droplet properties, the numerical viscosity, and the mean shear are equal to those in case B_4. Droplet interfaces are black lines, velocity vectors deviation from the mean velocity field are black arrows, color contours of $\mathcal{P}' = -S\rho uw$, and temporal evolution of $\mathcal{P}_d = \langle \mathcal{P}' \rangle_d$ in insert.

Movie 2: Two droplets demonstrating the droplet '*catching-up*' mechanism in laminar shear flow. All droplet properties, the numerical viscosity, and the mean shear are equal to those in case D_4. Droplet interfaces are black lines, velocity vectors deviation from the mean velocity field are black arrows, color contours of $\mathcal{P}' = -S\rho uw$, and temporal evolution of $\mathcal{P}_d = \langle \mathcal{P}' \rangle_d$ in insert.

Movie 3: Instantaneous color contours in x–z plane of $\mathcal{P}' = -S\rho uw$ and black lines for droplet interfaces for case B_4.

Movie 4: Two droplets demonstrating the droplet '*catching-up*' mechanism in laminar shear flow. All droplet properties, the numerical viscosity, and the mean shear are equal to those in case B_4. Droplet interfaces are black lines, velocity vectors deviation from the mean velocity field are black arrows, color contours of $\varepsilon' = Re^{-1}(\mathsf{T}'_{ij}\mathsf{S}'_{ij})$, and temporal evolution of $\varepsilon_d = \langle \varepsilon' \rangle_d$ in insert.