Movie Caption List

Movie 1. Animated hydrodynamic modes (top) and structural modes (bottom) for run 2-3001 with $σ\_{v}=0.25, AR\_{h}=2.0, α=5°, Fn\_{h}=1.5 $in calm water. Hydrodynamic modes are extracted from underwater video using spectral proper orthogonal decomposition (SPOD) and structural modes are estimated from kinematic shape sensing outputs using stochastic subspace identification (SSI).

Movie 2. Animated hydrodynamic modes (top) and structural modes (bottom) for run 2-3201 with $σ\_{v}=0.25, AR\_{h}=2.0, α=5°, Fn\_{h}=1.5 $in waves. Hydrodynamic modes are extracted from underwater video using spectral proper orthogonal decomposition (SPOD) and structural modes are estimated from kinematic shape sensing outputs using stochastic subspace identification (SSI).

Movie 3. Animated hydrodynamic modes (top) and structural modes (bottom) for run 2-5001 with $σ\_{v}=0.80, AR\_{h}=2.0, α=5°, Fn\_{h}=1.5 $in calm water. Hydrodynamic modes are extracted from underwater video using spectral proper orthogonal decomposition (SPOD) and structural modes are estimated from kinematic shape sensing outputs using stochastic subspace identification (SSI).

Movie 4. Animated hydrodynamic modes (top) and structural modes (bottom) for run 2-5801 with $σ\_{v}=0.30, AR\_{h}=1.0, α=5°, Fn\_{h}=3.5 $in calm water. Hydrodynamic modes are extracted from underwater video using spectral proper orthogonal decomposition (SPOD) and structural modes are estimated from kinematic shape sensing outputs using stochastic subspace identification (SSI).

Movie 5. Animated hydrodynamic modes (top) and structural modes (bottom) for run 2-6001 with $σ\_{v}=0.30, AR\_{h}=1.0, α=5°, Fn\_{h}=3.5 $in waves with a period of 1.5 s and amplitude of $A\_{w}=5$ cm. Hydrodynamic modes are extracted from underwater video using spectral proper orthogonal decomposition (SPOD) and structural modes are estimated from kinematic shape sensing outputs using stochastic subspace identification (SSI).

Movie 6. Animated hydrodynamic modes (top) and structural modes (bottom) for run 2-6201 with $σ\_{v}=0.30, AR\_{h}=1.0, α=5°, Fn\_{h}=3.5 $in waves with a period of 1.5 s and amplitude of $A\_{w}=5$ cm. Hydrodynamic modes are extracted from underwater video using spectral proper orthogonal decomposition (SPOD) and structural modes are estimated from kinematic shape sensing outputs using stochastic subspace identification (SSI).