

**Description of Supplementary Files for
“Flow interactions lead to self-organized flight formations disrupted by self-amplifying waves”**

File Name: **SourceData**

Description: This spreadsheet file contains pages that provide all the source data plotted in the figure panels.

File Name: **Movie 1**

Description: A live recording of the experimental apparatus in operation. Five foils are driven to flap up and down in unison, and they freely and interactively propel around a water tank.

File Name: **Movie 2**

Description: Top-view recording of a self-organized flock in experiments. The foils assemble into a lattice with regular gap spacing.

File Name: **Movie 3**

Description: Top-view recording of a collision. Strong fluctuations cause the last member to collide with its upstream neighbor, and the flock subsequently collapses.

File Name: **Movie 4**

Description: Reanimation of experimental measurements of the dynamics of five foils. Their rotational propulsion around a tank is displayed as translation.

File Name: **Movie 5**

Description: Animation of simulations corresponding to five foils traversing a periodic domain. The wake signal is represented by arrows trailing each member.

File Name: **Movie 6**

Description: Animation of simulations of five foils in an open domain and with the leader given an oscillatory perturbation.

File Name: **Movie 7**

Description: Animation of simulations of 30 foils. The leader is given oscillatory perturbations throughout the run, and the fluctuations amplify as they travel down the group. The simulation terminates with a collision among later members.

File Name: **Movie 8**

Description: Experimental recording of a flock with a vacancy defect. A void between members 3 and 4 is stably maintained.

File Name: **Movie 9**

Description: Animation of simulations of 10 foils flapping in phase and with the leader given an oscillatory perturbation.

File Name: **Movie 10**

Description: Animation of simulations of 10 foils flapping in anti-phase and with the leader given an oscillatory perturbation.