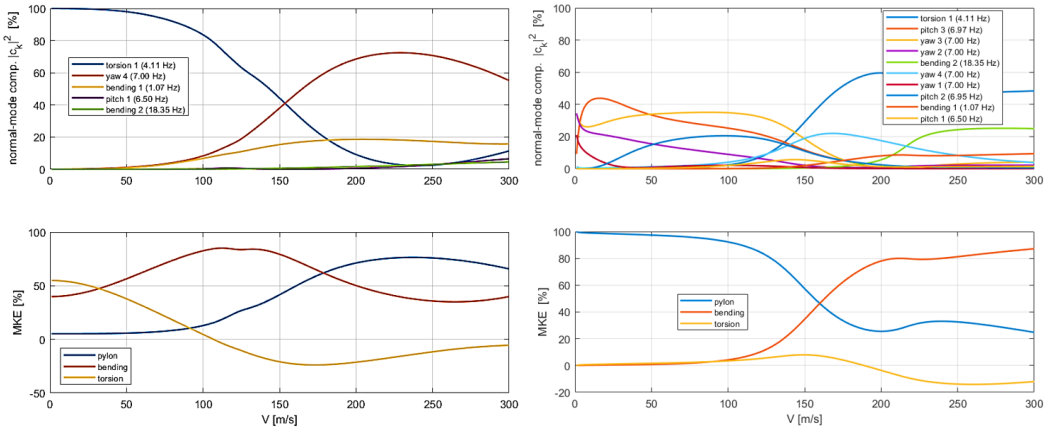
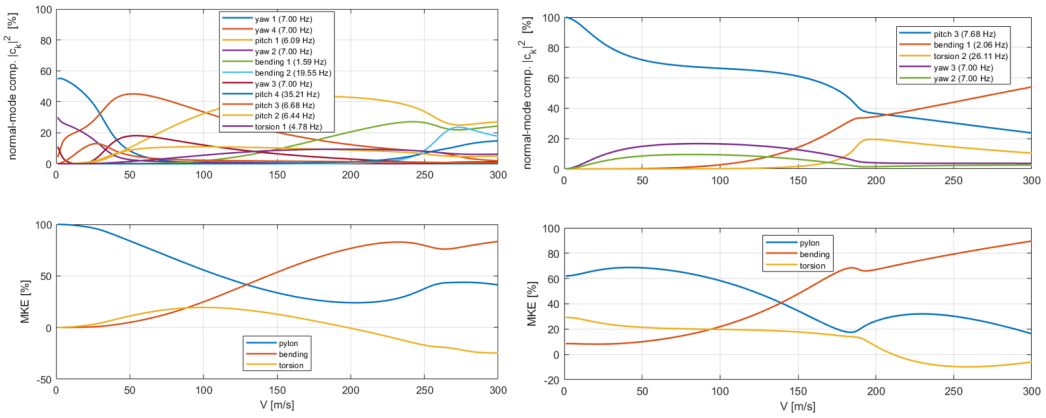
Supplementary Materials: Influences of Propeller Size and Spanwise Location on the Whirl Flutter of a Flexible Wing

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(**a**) Branch 23 (**b**) Branch 35

Figure S1. Continuous modal composition of the exchanging pair of Configuration 3, the branches crossing at 225 and 230 m/s.



(**a**) Configuration 1, branch 33 (**b**) Configuration 1, branch 37

Figure S2. Continuous modal composition of the exchanging pair of Configuration 1 and 2

Table S1. Galerkin convergence study: Natural frequencies in Hz and the relative error ε_r from the reference study, single propeller–wing model.

	Ref.	**Frequency**				ε_r **[%]**			
Mode	**[?]**	$n = 3$	$n = 4$	$n = 5$	$n = 6$	$n = 3$	$n = 4$	$n = 5$	$n = 6$
1st wing mode	2.85	2.85	2.85	2.85	2.85	0.0	0.0	0.1	0.1
Backward whirl	5.48	5.64	5.62	5.57	5.55	3.0	2.5	1.7	1.3
Forward whirl	7.00	7.00	7.00	7.00	7.00	0.0	0.0	0.0	0.0
2nd wing mode	17.75	17.88	17.82	17.75	17.75	0.8	0.4	0.0	0.0
3rd wing mode	19.48	19.72	19.71	19.61	19.58	1.2	1.2	0.7	0.5
4th wing mode	49.25	50.71	49.78	49.65	49.27	3.0	1.1	0.8	0.0
5th wing mode	51.37	96.66	52.43	52.37	51.47	88.2	2.1	1.9	0.2

Table S2. Galerkin convergence of the oscillatory stability boundaries. Velocities in m/s, frequencies in Hz.

n	V_{f1}	f_{f1}	V_{f2}	f_{f2}	V_{f3}	f_{f3}	V_{f4}	f_{f4}
Configuration 1								
3	224	4.97	227	4.62	262	17.10	—	—
4	221	4.90	232	4.51	263	17.22	—	—
5	221	4.83	234	4.47	263	17.23	—	—
6	221	4.80	233	4.47	263	17.23	—	—
Configuration 2								
3	149	5.13	152	4.99	195	14.86	—	—
4	149	5.11	153	4.96	193	14.72	—	—
5	149	5.11	153	4.95	192	14.65	—	—
6	148	5.12	153	4.95	190	14.54	—	—
Configuration 3								
3	124	5.20	149	5.12	156	4.98	224	12.77
4	125	5.17	149	5.12	155	4.98	225	12.79
5	125	5.17	148	5.12	156	4.97	225	12.78
6	126	5.16	148	5.12	156	4.97	225	12.78