

Abstract Submitted
for the DFD15 Meeting of
The American Physical Society

Interaction between two side-by-side inverted flags CECILIA HUERTAS-CERDEIRA, BOYU FAN, ANTOINE BARIZIEN, MORTEZA GHARIB, California Institute of Technology — The inverted flag instability occurs when an elastic plate that is free at its leading edge and clamped at its trailing edge is subjected to an axial wind. The oscillating motion that follows has received recent attention. However, previous studies have focused on the dynamics of a single flag even though these are rarely found isolated in natural phenomena, such as the fluttering of leaves in the wind. The interaction between two side-by-side inverted flags has been investigated, analyzing the effects of the distance between flags and the wind speed. Both in-phase and anti-phase coupling have been observed for different ranges of these parameters.

Cecilia Huertas-Cerdeira
California Institute of Technology

Date submitted: 31 Jul 2015

Electronic form version 1.4