Abstract Submitted
for the DFD14 Meeting of
The American Physical Society

**Parametric sensitivity for frequency response analysis of large-scale flows** MIGUEL FOSAS DE PANDO, Universidad de Cadiz, PETER SCHMID, Imperial College London — When studying the frequency response of globally stable flows, direct and adjoint information from a resolvent analysis has to be computed. These computations involve a sizeable amount of effort, which suggests their reuse to identify sensitivity measures to changes in the governing parameters, base/mean flow fields, boundary conditions or other changes to the underlying linearized operator. We introduce and demonstrate a general technique to determine first-order changes in the frequency response induced by general changes to the governing equations. Examples will include changes to the Reynolds and Mach number for a tonal-noise airfoil problem, sensitivity to heating of a mixing layer past a splitter plate and closeness to global instability for a simplified model equation.

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Date submitted: 01 Aug 2014 Electronic form version 1.4