## **Accepted Manuscript**

Model Reduction and Analysis of Deep Dynamic Stall on a Plunging Airfoil

Arvind T. Mohan, Datta V. Gaitonde, Miguel R. Visbal

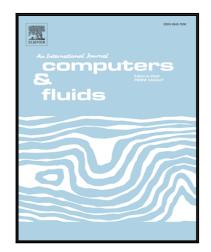
PII: \$0045-7930(16)30009-3

DOI: 10.1016/j.compfluid.2016.01.017

Reference: CAF 3084

To appear in: Computers and Fluids

Received date: 8 April 2015
Revised date: 2 November 2015
Accepted date: 25 January 2016



Please cite this article as: Arvind T. Mohan, Datta V. Gaitonde, Miguel R. Visbal, Model Reduction and Analysis of Deep Dynamic Stall on a Plunging Airfoil, *Computers and Fluids* (2016), doi: 10.1016/j.compfluid.2016.01.017

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

#### ACCEPTED MANUSCRIPT

### Highlights

- Dynamic Stall of MAV wing analyzed using Dynamic Mode Decomposition.
- Dominant flow structure oscillating at airfoil frequency with 4 harmonics found.
- Dominant POD modes are comprised of a combination of DMD modes.
- Local flow frequencies at leading edge represent global flow frequencies.

#### Download English Version:

# https://daneshyari.com/en/article/761311

Download Persian Version:

https://daneshyari.com/article/761311

<u>Daneshyari.com</u>