Accepted Manuscript

Optimal sensor placement using machine learning

R. Semaan

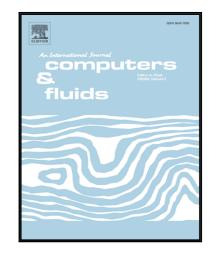
PII: S0045-7930(17)30359-6

DOI: 10.1016/j.compfluid.2017.10.002

Reference: CAF 3618

To appear in: Computers and Fluids

Received date: 31 January 2017
Revised date: 19 September 2017
Accepted date: 2 October 2017



Please cite this article as: R. Semaan, Optimal sensor placement using machine learning, *Computers and Fluids* (2017), doi: 10.1016/j.compfluid.2017.10.002

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

- A machine learning-based approach for optimal sensor placement is proposed.
- The approach relies on input variable importance ranking.
- Method validated against POD mode extrema, and against a brute force approach.
- Flow conditions and sensor type have an effect on optimal sensor placement
- Choice of response function has limited influence on optimal sensor placement.

Download English Version:

https://daneshyari.com/en/article/5011663

Download Persian Version:

 $\underline{https://daneshyari.com/article/5011663}$

Daneshyari.com