## Accepted Manuscript

A Numerical Study on the Water Droplet Erosion of Blade Surfaces

Palani Kumar Chidambaram, Heuy-Dong Kim

PII:S0045-7930(17)30406-1DOI:10.1016/j.compfluid.2017.11.004Reference:CAF 3649

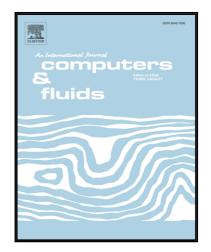
To appear in:

Computers and Fluids

Received date:1 April 2016Revised date:30 October 2017Accepted date:10 November 2017

Please cite this article as: Palani Kumar Chidambaram, Heuy-Dong Kim, A Numerical Study on the Water Droplet Erosion of Blade Surfaces, *Computers and Fluids* (2017), doi: 10.1016/j.compfluid.2017.11.004

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.



## Highlights

- Numerical model consisting discrete phase method and sliding mesh method
- Erosion prediction by an empirical relation through user defined function.
- Numerical model is validated with experimental data and the empirical relation.
- Parametric study suggests smaller velocity exponent than empirical relation.
- This difference is attributed to the diameter distribution of the droplets.

1

Download English Version:

## https://daneshyari.com/en/article/7156442

Download Persian Version:

https://daneshyari.com/article/7156442

Daneshyari.com