## **Accepted Manuscript**

Modeling of Inertial Multi-Phase Flows through High Permeability Porous Media: Friction Closure Laws

R. Clavier, N. Chikhi, F. Fichot, M. Quintard

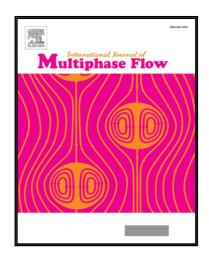
PII: \$0301-9322(16)30235-X

DOI: 10.1016/j.ijmultiphaseflow.2017.02.003

Reference: IJMF 2539

To appear in: International Journal of Multiphase Flow

Received date: 25 April 2016
Revised date: 3 February 2017
Accepted date: 5 February 2017



Please cite this article as: R. Clavier, N. Chikhi, F. Fichot, M. Quintard, Modeling of Inertial Multi-Phase Flows through High Permeability Porous Media: Friction Closure Laws, *International Journal of Multiphase Flow* (2017), doi: 10.1016/j.ijmultiphaseflow.2017.02.003

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 new model for calculating the pressure drop and void fraction in inertial two-phase flow in particle beds is proposed
- The model is based on an equation structure obtained by volume averaging
- Correlations for the parameters are derived from experimental data obtained by the authors and by previous work in the literature
- Predictions of the new model are compared to experimental data and to predictions of previous models. The new model reproduces well the experimental data, and constitutes a significant improvement compared to previous models

#### Download English Version:

# https://daneshyari.com/en/article/4994979

Download Persian Version:

https://daneshyari.com/article/4994979

<u>Daneshyari.com</u>