# Accepted Manuscript

A fractional-order Maxwell model for non-Newtonian fluids

Y. Carrera, G. Avila-de la Rosa, E.J. Vernon-Carter, J. Alvarez-Ramirez

PII: S0378-4371(17)30409-0
DOI: http://dx.doi.org/10.1016/j.physa.2017.04.085
Reference: PHYSA 18187

To appear in: *Physica A*

Received date: 27 October 2016
Revised date: 27 February 2017

Please cite this article as: Y. Carrera, G. Avila-de la Rosa, E.J. Vernon-Carter, J. Alvarez-Ramirez, A fractional-order Maxwell model for non-Newtonian fluids, *Physica A* (2017), http://dx.doi.org/10.1016/j.physa.2017.04.085

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 (for review)**

## Highlights

- A fractional-order Maxwell model for non-Newtonian fluids is proposed
- The storage and loss modules are computed via first-harmonic balance
- Estimation of viscoelasticity and relaxation parameters is performed from least-squares optimization
- Three experimental examples are used to illustrate the findings

ACCEPTED MANUSCRIPT

Download English Version:

https://daneshyari.com/en/article/5102810

Download Persian Version:

https://daneshyari.com/article/5102810

Daneshyari.com