

Accepted Manuscript

Analytical solution by Laplace-Ritz variational method for non-Newtonian nanofluid inside a circular tube

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PII: S0020-7403(17)32665-6
DOI: [10.1016/j.ijmecsci.2017.12.006](https://doi.org/10.1016/j.ijmecsci.2017.12.006)
Reference: MS 4070



To appear in: *International Journal of Mechanical Sciences*

Received date: 24 September 2017
Revised date: 12 November 2017
Accepted date: 1 December 2017

Please cite this article as: Antar Tahiri , Kacem Mansouri , Analytical solution by Laplace-Ritz variational method for non-Newtonian nanofluid inside a circular tube, *International Journal of Mechanical Sciences* (2017), doi: [10.1016/j.ijmecsci.2017.12.006](https://doi.org/10.1016/j.ijmecsci.2017.12.006)

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Highlights

- Laminar flow forced convection of a non-Newtonian nanofluid is investigated.
- An exact solution is found by using a variational Ritz-Laplace method.
- Analytical model is validated by comparing our results with the literature.
- The effects of pertinent parameters on temperature and Nusselt number are studied.

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