

## Cover letter

May 16, 2019

Editorial Department of International Journal of Thermal Sciences

Indian Institute of Technology Madras

Chennai, Tamil Nadu 600036, India

Dear Editor of the IJTS,

I am submitting a manuscript for consideration of publication in International Journal of Thermal Sciences. The manuscript is entitled “Thermal analysis of turbulent Poiseuille flows”.

It has not been published elsewhere and that it has not been submitted simultaneously for publication elsewhere.

A semi-analytical methodology for solving the thermal field over an turbulent Poiseuille channel flow was developed based on the Boussinesq hypothesis. On such method, differential evolution was applied to adjust an ideal turbulent Prandtl number for each Reynolds number. Then it was possible to develop a model for the turbulent Prandtl number in function of the Reynolds number that reduced the error of the simulation when compared with DNS simulations.

Thank you very much for your attention.

Yours Sincerely,

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