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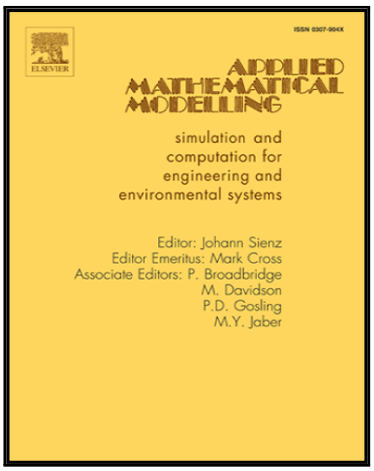

Unsteady Marangoni convection heat transfer of fractional Maxwell fluid with Cattaneo heat flux

Jinhu Zhao , Liancun Zheng , Xuehui Chen , Xinxin Zhang , Fawang Liu

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Highlights

- Unsteady Marangoni convection heat transfer of viscoelastic fluid over flat surface with variable heat flux are investigated.
- Fractional shear stress and Cattaneo heat flux models are introduced firstly in characterizing constitutive relations.
- Numerical solutions are obtained and some novel phenomena are found.
- Effects of fractional derivative, Marangoni number and power law exponent on velocity and temperature fields are analyzed.

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* Corresponding author, E-mail address: liancunzheng@ustb.edu.cn

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