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Stagnation-point flow of Casson fluid in Darcy-Forchheimer porous media with Newtonian heating effect (Article)

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Abstract

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Flow of Casson fluid in Darcy-Forchheimer porous medium near a stagnation point over a stretching sheet with Newtonian heating effect is investigated in this paper. The boundary-layer equations are solved numerically for f'(0) and θ(0) using the Keller-box method for some values of Casson fluid parameter (β), porous media pa-rameter (κ_1), inertia-coefficient parameter (κ_2), Newtonian heating parameter (γ), Prandtl number (Pr) and stretching parameter (c).

SciVal Topic Prominence

Topic: Boundary layer flow | Stretching | stretching sheet

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Author keywords

Boundary-layer | Darcy-Forchheimer | Medium | Newtonian heating | Parameter | Stretchng sheet

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1 Ahmad, K., Nazar, R., Pop, I.
Boundary layer flow and heat transfer of a micropolar fluid near the stagnation point on a stretching vertical surface with prescribed skin friction

(2011) *International Journal of Minerals, Metallurgy and Materials*, 18 (4), pp. 502-507. Cited 3 times.
doi: 10.1007/s12613-011-0469-y

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(2010) Chemical Engineering Communications

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(2015) AIP Conference Proceedings

Numerical investigation of stagnation point flow over a stretching sheet with Newtonian heating
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(2012) AIP Conference Proceedings

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(2017) *European Physical Journal Plus*, 132 (2), art. no. 87. Cited 13 times.
http://www.springer.com.ezproxy.um.edu.my/physics/applied+%26+technical+physics/journal/13360
doi: 10.1140/epjp/i2017-11356-5

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3 Bakar, S.A., Arifin, N.M., Nazar, R., Ali, F.M., Pop, I.
Forced convection boundary layer stagnation-point flow in Darcy-Forchheimer porous medium past a shrinking sheet (Open Access)

(2016) *Frontiers in Heat and Mass Transfer*, 7 (1). Cited 24 times.
https://www.thermalfluidscentral.org/journals/index.php/Heat_Mass_Transfer/article/view/559/485
doi: 10.5098/hmt.7.38

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4 Attia, H.A.
Heat transfer in a stagnation point flow of a micropolar fluid over a stretching surface with heat generation/absorption

(2006) *Tamkang Journal of Science and Engineering*, 9 (4), pp. 299-305. Cited 3 times.

5 Cebeci, T., Bradshaw, P.
(1988) *Physical and Computational Aspects of Convective Heat Transfer*, p. 487. Cited 1316 times.
2nd Edn., Springer, New York, USA

6 Chiam, T.C.
Stagnation-Point Flow Towards a Stretching Plate

(1994) *Journal of the Physical Society of Japan*, 63 (6), pp. 2443-2444. Cited 226 times.
doi: 10.1143/JPSJ.63.2443

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7 Ishak, A., Nazar, R.
Stagnation point flow over a stretching permeable sheet micropolar fluid
(2009) *J. Qual. Meas. Anal. JQMA*, 5, pp. 45-50.

8 Kumar, P.S., Devi, M.B., Gangadhar, K.
Slip velocity on a casson fluid flow over a vertical porous surface with heat generation or absorption in a non-darcy porous medium
(2016) *Intl. J. Appl. Math. Sci*, 9, pp. 77-101.

9 Lesnic, D., Ingham, D.B., Pop, I., Storr, C.
Free convection boundary-layer flow above a nearly horizontal surface in a porous medium with newtonian heating

(2004) *Heat and Mass Transfer/Waerme- und Stoffuebertragung*, 40 (9), pp. 665-672. Cited 56 times.
http://www.springer.com.ezproxy.um.edu.my/sgw/cda/frontpage/0,11855,1-40109-70-1034617-0,00.html
doi: 10.1007/s00231-003-0435-y

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