

PUBLICATIONS

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Chapters in Books (2)

1. Small A., **Nagarani P.** (2021) Fluid Motion in Finite Length Tubes in Peristaltic Pumps. In: Rushi Kumar B., Sivaraj R., Prakash J. (eds) *Advances in Fluid Dynamics. Lecture Notes in Mechanical Engineering*. Springer, Singapore. https://doi.org/10.1007/978-981-15-4308-1_3
2. B.T. Sebastian and **P. Nagarani**: Effect of Boundary Absorption on Dispersion of a Solute in Pulsatile Casson Fluid Flow. *Interdisciplinary Topics in Applied Mathematics, Modeling and Computational Science*, Ed By Cojocaru, M., Kotsireas, I.S., Makarov, R., Melnik, R.V.N., Shodiev, H: Springer, 2015, 117 , 389-395

Journal Articles (18)

1. A. Ausaru, **P. Nagarani** & B.T Sebastian, Dispersion with wall absorption in non-Newtonian fluid flow subjected to external body acceleration *The European Physical Journal Special Topics (2021)* <https://doi.org/10.1140/epjs/s11734-021-00051-x>
2. B.T. Sebastian, P. Nagarani, On convection-diffusion in non-Newtonian fluid flow in an annulus with wall oscillations, *The European Physical Journal Special Topics 2019*, Volume 228, pp 2729-2752.
3. Binil Thomas Sebastian, **P. Nagarani**, Convection-diffusion in unsteady non-Newtonian fluid flow in an annulus with wall absorption, *Korea-Australia Rheology Journal*, November 2018, Volume 30, Issue 4, pp 261-271.
3. **P. Nagarani** and B.T. Sebastian, Effect of flow unsteadiness on dispersion in Non-Newtonian fluid in an annulus, *J. Appl. Math. & Informatics*, 35(2017), no. 3 - 4, pp. 241 - 260, <https://doi.org/10.14317/jami.2017.241>
4. **P. Nagarani** and B.T. Sebastian, Dispersion of a solute in pulsatile non-Newtonian fluid through a tube, *Acta Mechanica* (2013), 224: 571-585.
5. B. Ramana, G. Sarojamma, B. Vishali, **P. Nagarani**: Dispersion of a Solute in a Herschel-Bulkley Fluid Flowing in a Conduit, *Journal of Experimental Sciences* 2012, 3(2): 14-23.

6. **Nagarani, P.** and Lewis, A. : Peristaltic flow of a Casson fluid in an annulus. *Korea – Australia Rheology Journal* 24(1), 2012, 1-9.
7. Arunaye, F. I, Bhatt. B. S. and **Nagarani, P.:** On the solution of the convective-diffusion equation, *Int. Jour. of Pure and Applied Mathematics*, 68(1), 2011, 37-53.
8. **Nagarani, P.:** Peristaltic transport of a Casson fluid in an inclined channel, *Korea – Australia Rheology Journal*, 22(2), 2010, 105-111.
9. **Nagarani, P.,** Sarojamma,G. and Jayaraman, G.: Effect of boundary absorption on dispersion in Casson fluid flow in an annulus - application to catheterized artery. *Acta Mechanica*, 202, 2009, 47-63.
10. **Nagarani, P.,** Sarojamma,G.: Effect of body acceleration on pulsatile flow of Casson fluid through a mild stenosed artery. *Korea – Australia Rheology Journal*, 20(4), 2008, 189-196.
11. **Nagarani, P.,** and Sarojamma, G.: Peristaltic transport of small particles – power law fluid suspension in a channel, *Australasian Physical & Engineering Sciences in Medicine*, 30 (3), 2007, 185-193.
12. **Nagarani, P.,** Sarojamma, G. and Jayaraman, G.: Exact analysis of unsteady convective diffusion in Casson fluid flow in an annulus – Application to catheterized artery, *Acta Mechanica*, Vol 187, 2006, 189-202.
13. **Nagarani, P.,** Sarojamma, G. and Jayaraman, G.: Effect of boundary absorption in dispersion in Casson fluid flow in a tube, *Annals of Biomedical Engineering*, Vol. 32, No. 5, 2004, 706-719.
14. **Naga Rani, P.,** Sarojamma, G.: Peristaltic transport of a Casson fluid in an asymmetric channel, *Australasian Physical & Engineering Sciences in Medicine*, Vol. 27, No.2, 2004, 49-59.
15. Sarojamma, G., **Naga Rani, P.** and Jan, M.: Channel flow of a viscous fluid induced by a traveling thermal wave, *Acta Ciencia Indica*, Vol. XXIX M, No. 4, 2003,771-782.
16. Sarojamma, G., Haritha, P. and **Nagarani, P.:** Peristaltic Transport of a Viscous Fluid in a Channel under the Influence of a Transverse Magnetic Field, *Proc. of AP Akademi of Sciences*, Vol. 7, No. 1, 2003, 25-32.
17. Sarojamma, G. and **Naga Rani, P.:** Pulsatile flow of a Casson fluid through homogeneous porous medium subject to external acceleration, *International Journal of Non-Linear Differential Equations Theory-Methods and Applications*, Vol. 7, Nos. 1 and 2, Jan-Dec.2002, 50-64.

Refereed Conference Proceedings (4)

1. Marneni Narahari, S. Suresh Kumar Raju, and **P. Nagarani**: Joule heating effects on unsteady natural convection flow near a moving semi-infinite vertical plate with variable heat flux and mass transfer, *AIP Conf. Proc.* 1787, 020005 (2016); <http://dx.doi.org/10.1063/1.4968054>
2. **Nagarani, P.** and Sebastian, B.: Effect of Flow Oscillation on Dispersion of a Solute in a Tube, *AIP Conf. Proc.* 1368, 2011, pp. 29-32; doi:10.1063/1.3663452.
3. **Nagarani, P.,** G. Sarojamma and G. Jayaraman: On the dispersion of a solute in a Casson fluid flow in an annulus with boundary absorption, *Proc. of the American Conference on Applied Mathematics*, **2008**, 265-273. ISBN: 978-960-6766-47-3
4. **Nagarani, P.** and G. Sarojamma: Flow of a Casson fluid through a stenosed artery subject to periodic body acceleration, *Proc. of the 9th WSEAS Int. Conf. on Mathematical and Computational methods in Science and Engineering*, 2007, 237-244.