

B.Sri Padmavati

List of important publications

1. (with T.Amaranath and R.Usha) Shear-free Circle theorem in Stokes flow **Jl.Math. Phy. Sci.**, Vol. 26(1), 1992, pp 9-18.
2. (with T.Amaranath) Stokes flow past a permeable sphere- **Jl.Math. Phy. Sci.**, Vol. 26(2), 1992, pp139-146.
3. (with T.Amaranath) A solution for the problem of Stokes flow past a porous sphere, **ZAMP** ,44(1),1993,pp178-184.
4. (with T.Amaranath and S.D.Nigam) Stokes flow past a sphere with mixed slip - stick boundary conditions, **Fluid Dynamics Research**, Vol. 11(5), 1993, pp 229-234.
5. (with T.Amaranath and S.D.Nigam) Stokes flow past a porous sphere using Brinkman's model, **ZAMP**, Vol. 44(2), 1993, pp929-939.
6. (with T.Amaranath) Circle theorems for Stokes flows with mixed slip-stick boundary conditions,**Mechanics Research Communications**, Vol. 20(6), 1993, pp439-446.
7. (with T.Amaranath and D.Palaniappan) Stokes flow past a permeable sphere,Non-axisymmetric case, **ZAMM**, Vol. 74(7), 1994, pp290 - 292.
8. (with T.Amaranath and D.Palaniappan) Stokes flow about a porous spherical particle, **Archives of Mechanics**, Vol. 46(1-2), 1994, pp201-209.
9. (with T.Amaranath and D.Palaniappan) Motion inside a liquid sphere - singularities inside, **Fluid Dynamics Research**, Vol. 15, 1995, pp167-176.
10. (with G.P.Rajasekhar, K.Tejeswara Rao and T.Amaranath) Two dimensional Stokes flow with slip -stick boundary conditions, **Mechanics Research Communications**, Vol. 22(5), 1995, pp491-501.
11. (with T.Amaranath) Stokes flow past a composite porous spherical shell with a rigid core, **Archives of Mechanics**, Vol. 48(2), 1996, pp311-323.
12. (with G.P.Rajasekhar and T.Amaranath) Complete General Solution of Brinkman Equations, **ZAMM**, Vol. 77, No. 7, 1997, pp555-556.
13. (with T.Amaranath and G.P.Rajasekhar) A Note on Complete General Solutions of Stokes Equations, **Quart. J. Mech. appl. Math.**, Vol. 51, Pt. 3, 1998, pp383-388.
14. Stokes flow past a permeable circular cylinder, **Mechanics Research Communications**, Vol. 26, No. 1, 1999, pp107-113.
15. (with T.Amaranath, G.P.Rajasekhar and S.D.Nigam) Group Structure in Circle Theorem, **Studies in Applied Mathematics**, Vol.106, No.4, 2001, pp407-417.
16. (with T.Amaranath, G.P.Rajasekhar and S.D.Nigam) Group Structure in Circle and Sphere Theorems, **ZAMM**, Vol. 81, No.8, 2001, pp570-575.

17. (with T.Amaranath) A Note on Decomposition of Solenoidal Fields, **Applied Mathematics Letters**, Vol. 15, 2002, pp803-805.
18. (with T.Amaranath and A.Venkatalaxmi) Complete General Solution of Stokes Equations for Plane Boundaries, **Mechanics Research Communications**, Vol.31, No.4, 2004, pp465-475.
19. (with T.Amaranath and A.Venkatalaxmi) Unsteady Stokes Equations : Some Complete General Solutions, **Proc. Ind. Acad. Sci. (Math. Sci.)**, Vol.114, No.2 May 2004, pp1-11.
20. (with T.Amaranath and A.Venkatalaxmi) A general solution of unsteady Stokes equations, **Fluid Dynamics Research**, Vol.35, 2004, pp229-236.
21. (with A.Venkatalaxmi and T.Amaranath) A General Solution of Oseen Equations, **Fluid Dynamics Research**, Vol. 39, 2007, pp595-606.
22. General Solutions of the Oseen Equations, **PAMM, Proc. Appl. Math. Mech.**, Vol.7, 2007, pp1100703-1100704.
23. A note on solenoidal vector fields in spherical polar coordinates **Ind. Jl. of Pure and Appl. Math.**, Vol. 39, No.4, 2008, pp317-321.
24. (with R.Radha and T.Amaranath) New approximate analytical solutions for creeping flow past axisymmetric rigid bodies, **Mech. Res. Comm.**, Vol.37, 2010, pp256-260.
25. (with Debarjoyti Choudhuri) A study of an arbitrary Stokes flow past a fluid coated sphere in a fluid of a different viscosity, **ZAMP**, Vol.61(2), 2010, pp317-328.
26. (with R.Radha and T.Amaranath) A New Approximate Analytical Solution for Arbitrary Stokes Flow Past Rigid Bodies, **ZAMP**, Vol.63, 2012, pp1103-1117.
27. (with D.Choudhuri and R.Radha) Stokes flow past an arbitrary shaped body with slip-stick boundary conditions, **Applied Mathematics and Computation**, Vol. 219, 2013, pp5367-5375.
28. (with D.Choudhuri and R.Radha), A study of an arbitrary unsteady Stokes flow in and around a liquid sphere, **Applied Mathematics and Computation**, Vol. 243, 2014, pp644-656.
29. (with T.Amaranath) A note on general solutions of Stokes equations, **Acta Mechanica Sinica**, Vol. 32(6), 2016, pp 1044-1045;
30. (with Suman Kumar Tumuluri), A class of general solutions of the unsteady Oseen equations, **ZAMP**, Vol. 70(3), 2019, pp70-77.
31. (with R.Radha) Stokes flow past porous bodies of arbitrary shape, **Indian Journal of Pure and Applied Mathematics (IJPAM)** Vol.51, Issue 3, pp1247-1263, 2020.

32. V. Sharanya, B.Sri Padmavati, & G.P. Raja Sekhar, Transient Stokes flow past a spherical droplet with a stagnant cap due to contaminated surfactant layer, **Theor. Comput. Fluid Dyn.** Vol 35, 2021, pp783806.
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