

PUBLICATION LIST

DR. YURI DUMARESQ SOBRAL

1 Articles in Indexed Journals

1. Cunha, F. R., Sobral, Y. D., Gontijo, R. G. Stabilization of concentration waves in fluidized beds of magnetic particles. *Powder Technology*, Vol. 241, pp. 219–229, 2013.
2. Cunha, F. R., Gontijo R. G., Sobral, Y. D. Symmetry breaking of particle trajectories due to magnetic interactions in a dilute suspension. *Journal of Magnetism and Magnetic Materials*, v. 326, pp. 240–250, 2013.
3. Sobral, Y. D., Hinch, E. J. Gravitational overturning in stratified particulate flows. *SIAM Journal on Applied Mathematics*, Vol. 71, No. 6, pp. 2151–2167, 2011.
4. Sobral, Y. D., Oliveira, T. F., Cunha, F. R. On the unsteady forces during the motion of a sedimenting particle. *Powder Technology*, v. 178, p. 129-141, 2007.
5. Oliveira, T. F., Sobral, Y. D., Bobenrieth-Miserda, R. F., Cunha, F. R. Una metodología de análisis estocástico de flujos turbulentos. *Revista Iberoamericana de Ingeniería Mecánica*, v. 11, n. 3, p. 53-61, 2007.
6. Cunha, F. R., Sobral, Y. D. Asymptotic solution for pressure driven flows of magnetic fluids in pipes. *Journal of Magnetism and Magnetic Materials*, v. 289, p. 314-317, 2005.
7. Sobral, Y. D., Cunha, F. R. Drift velocity and stretching of polarized drops in magnetic fields. *Journal of Magnetism and Magnetic Materials*, v. 289, p. 318-320, 2005.
8. Sobral, Y. D., Cunha, F. R. Efeitos hidrodinâmicos e magnéticos na estabilização de ondas de concentração em leitos fluidizados. *Revista Iberoamericana de Ingeniería Mecánica*, v. 9, n. 1, p. 23-36, 2005.
9. Ramos, D. M., Cunha, F. R., Sobral, Y. D., Rodrigues, J. L. A. F. Numerical Simulation of Magnetic Fluids in Laminar Pipe Flows. *Journal of Magnetism and Magnetic Materials*, v. 289, p. 238-241, 2005.
10. Sobral, Y. D., Cunha, F. R. Wave hierarchy of concentration waves in magnetic fluidized beds. *Journal of Magnetism and Magnetic Materials*, v. 289, p. 111-114, 2005.
11. Cunha, F. R., Sobral, Y. D. Characterization of the physical parameters in a process of magnetic separation and pressure driven flows of a magnetic fluid in a cylindrical tube. *Physica A*, v. 343C, p. 36-64, 2004.

12. Sobral, Y. D., Cunha, F. R. A stability analysis of a magnetic fluidized bed. *Journal of Magnetism and Magnetic Materials*, v. 258, p. 464-467, 2003.
13. Sobral, Y. D., Cunha, F. R. A linear stability analysis of a homogeneous fluidized bed. *Tendencies in Computational and Applied Mathematics*, v. 3, n. 2, p. 197-206, 2002.

2 Articles in Indexed Journals - In Preparation and/or Submitted

1. Sobral, Y. D., Hinch, E. J. Characterisation of one-dimensional linear and nonlinear concentration waves in fluidised beds. In preparation, 2012.
2. Cunha, F. R., Gontijo R. G., Sobral, Y. D. Magnetic field effects on the Shape of a Magnetic Fluid Meniscus. In preparation, 2012.
3. Maia L. A., Sobral, Y. D., Ruviaro R. Mountain Pass Algorithm via Pohozaev Manifold. In preparation, 2012.
4. Sobral, Y. D., Taberlet, N., Tokieda, T. Energy dissipation in a granular drum in an incline. In preparation, 2012.

3 Articles in Refereed Conference Proceedings

1. Sobral, Y. D., Hinch, E. J. Two-dimensional instabilities in fluidised beds. In: 11th Pan-American Congress of Applied Mechanics, 2010, Foz do Iguaçu.
2. Sobral, Y. D., Hinch, E. J. Concentration instabilities and the formation of bubbles in fluidised beds. In: 6th International Conference on Multiphase Flow, 2007, Leipzig.
3. Sobral, Y. D., Hinch, E. J. Fluctuations de concentration et instabilité secondaire en lits fluidisés. Partie I: Stabilité linéaire et saturation des ondes de concentration. In: 18ème Congrès Français de Mécanique, 2007, Grenoble.
4. Sobral, Y. D., Hinch, E. J. Instabilities and bubble formation in fluidised beds. In: 19th International Congress of Mechanical Engineering, 2007, Brasília.
5. Sobral, Y. D., Cunha, F. R. On the unsteady motion of an isolated sedimenting particle. In: 18th International Congress of Mechanical Engineering, 2005, Ouro Preto.
6. Ramos, D. M., Sobral, Y. D., Cunha, F. R., Rodrigues, J. L. A. F. Computer Simulation of Magnetic Fluids in Laminar Pipe Flows. In: 10th Brazilian Congress of Thermal Sciences and Engineering, Rio de Janeiro, 2004.

7. Torres, W. P., Sobral, Y. D., Cunha, F. R. Uma Investigação Experimental de Ondas de Concentração em Leitos Fluidizados Líquido-Sólido. Parte I: Caracterização do Sistema de Fluidização e Visualização das Instabilidades. In: 10th Brazilian Congress of Thermal Sciences and Engineering, Rio de Janeiro, 2004.
8. Sobral, Y. D., Cunha, F. R. Characterization of the Physical Parameters in a Process of Magnetic Separation. In: 17th International Congress of Mechanical Engineering, São Paulo, 2003.
9. Sobral, Y. D., Cunha, F. R. Estabilização de Ondas de Concentração em Leitos Fluidizados com Fase Particulada Magnética. In: VI Congresso Iberoamericano de Engenharia Mecânica, Coimbra, 2003.
10. Sobral, Y. D., Cunha, F. R. Mechanisms of Void Fraction Instabilities in Fluidized Beds. In: 9th Brazilian Congress of Thermal Sciences and Engineering, Caxambu, 2002.
11. Sobral, Y. D., Cunha, F. R. A Note on the Governing Equations of Fluidized Bed Suspensions. In: XVI Congresso Brasileiro de Engenharia Mecânica, Uberlândia, 2001.

4 Abstracts in Conference Proceedings

1. Cunha, F. R., Gontijo R. G., Sobral, Y. D. An Analysis of Two Particle Relative Trajectories Interacting Hydrodynamically and Magnetically in Creeping Flow. 13th International Conference on Magnetic Fluids, 2013, New Delhi (to appear in January 2013).
2. Cunha, F. R., Gontijo R. G., Sobral, Y. D. On the Balance and Constitutive Equations Governing the Motion of Non-symmetrical Fluids. 13th International Conference on Magnetic Fluids, 2013, New Delhi (to appear in January 2013).
3. Cunha, F. R., Gontijo R. G., Sobral, Y. D. Shape of a Magnetic Fluid Free Surface Undergoing an External Field. 13th International Conference on Magnetic Fluids, 2013, New Delhi (to appear in January 2013).
4. Cunha, F. R., Gontijo R. G., Sobral, Y. D. An Investigation of a Ferrofluid Stability Used in Electrical Transformers from its Rheological Properties. 13th International Conference on Magnetic Fluids, 2013, New Delhi (to appear in January 2013).
5. Sobral Y.D., Taberlet N., Grenard V., Cunha F.R. A Study of Fluidisation Via a Hybrid Method. 6th International Conference on Multiscale Materials Modeling, 2012, Singapore.
6. Sobral Y.D., Taberlet N., Grenard V., Cunha F.R. Simulations of Suspensions Using Molecular Dynamics Coupled with Averaged Continuum Equations. In: International Congress on Industrial and Applied Mathematics, 2011, Vancouver.

7. Sobral, Y.D., Bubble Formation in Fluidised Beds. In: International Congress on Industrial and Applied Mathematics, 2011, Vancouver.
8. Sobral, Y. D., Hinch, E. J. Two-dimensional Instabilities in Fluidised Beds. In: International Congress of Mathematicians, 2010, Hyderabad.
9. Taberlet, N., Tokieda, T., Sobral, Y. D. Energy dissipation in a rotating drum. In: Southern Workshop on Granular Materials, 2009, Viña del Mar,. p. 41.
10. Sobral, Y. D., Hinch, E. J. Two-dimensional instabilities in fluidised beds. In: Southern Workshop in Granular Materials, 2009, Viña del Mar, p. 38.
11. Ramos, D. M., Sobral, Y. D., Cunha, F. R. A Study of Drag Reduction in a Pipe Flow of a Magnetic Fluid. In: Third Annual European Rheology Conference, 2006, Hersonissos.
12. Sobral, Y. D., Hinch, E. J. Instabilities in fluidised beds: growth and saturation of 1D disturbances. In: British Applied Mathematics Colloquium, 2006, Stoke-on-Trent.
13. Sobral, Y. D., Cunha, F. R. Asymptotic Solutions for Pressure Driven Flows of Magnetic Fluids in Pipes. In: 10th International Conference on Magnetic Fluids, 2004, Guarujá, p. 290.
14. Sobral, Y. D., Cunha, F. R. Drift Velocity and Stretching of Polarized Drops in Magnetic Fields. In: 10th International Conference on Magnetic Fluids, 2004, Guarujá, p. 256.
15. Ramos, D. M., Sobral, Y. D., Rodrigues, J. L. A. F., Cunha, F. R. Numerical Simulation of Magnetic Fluids in Pipes. In: 10th International Conference on Magnetic Fluids, 2004, Guarujá, p. 140.
16. Sobral, Y. D., Cunha, F. R. Wave Hierarchy of Concentration Waves in Magnetic Fluidized Beds. In: 10th International Conference on Magnetic Fluids, 2004, p. 86.
17. Sobral, Y. D., Cunha, F. R. A Note on the Problem of a Wave Hierarchy Approach to Describe Concentration Waves Interactions in Fluidized Beds. In: VIII Workshop on Partial Differential Equations, 2003, Rio de Janeiro, p. 79.
18. Sobral, Y. D., Cunha, F. R. On the Transition Between Aggregative and Particulate Flows in Fluidized Beds. In: XXV Congresso Nacional de Matemática Aplicada e Computacional, Nova Friburgo, 2002. p. 439.
19. Sobral, Y. D., Cunha, F. R. The Influence of Magnetic Parameters on the Stability of Magnetic Fluidized Beds. In: XXV Congresso Nacional de Matemática Aplicada e Computacional, Nova Friburgo. 2002. p. 440.
20. Sobral, Y. D., Cunha, F. R. The Stability of a Polarized Fluidized Bed of Magnetic Particles. In: Moscow International Symposium on Magnetism, 2002, Moscow, p. 276.

21. Sobral, Y. D., Cunha, F. R. A Linear Stability Analysis of a Homogeneous Fluidized Bed. In: XXIV Congresso Nacional de Matemática Aplicada e Computacional, 2001, Belo Horizonte, p. 60.