

LIST OF PUBLICATIONS

Journal papers

1. F. M.J.J. De Somer, M. R. Vetrano, J. P.A.J. Van Beeck and G. J. Van Nooten, "Extracorporeal bubbles: a word of caution", **Interact. Cardio. Vasc. Thorac. Surg.**, vol.10 (2010), pp.995-1001
2. Collin , P. Boulet , G. Parent , M. R. Vetrano and J.-M. Buchlin, «Dynamics and thermal behaviour of water sprays», **International Journal of Thermal Sciences**, vol. 47, N. 4, (2008), pp. 399-407.
3. M. R. Vetrano, S. Gauthier, J. van Beeck, P. Boulet and J. –M. Buchlin "Characterization of a non-isothermal water spray by global rainbow thermometry", **Experiments in Fluids**, vol. 40, (2006), pp. 15-22.
4. M. R. Vetrano, J. van Beeck and M. Riethmuller, "Assessment of refractive index gradients by Standard Rainbow Thermometry", **Applied Optics**, vol. 44, N. 34, (2005), pp. 7275-7281.
5. M. R. Vetrano, J. van Beeck and M. Riethmuller, "Generalization of Rainbow Airy theory to non-uniform spheres", **Optics Letters**, vol.30, (2005), pp. 658-660.
6. M. R. Vetrano, J. van Beeck and M. Riethmuller, "Global Rainbow Thermometry: improvements in the data inversion algorithm and validation technique in liquid-liquid suspension", **Applied Optics**, vol. 43, N. 18 (2004), pp. 3600-3607.
7. L. Marrucci, D. Paparo, M. R. Vetrano, M. Colicchio, G. Viscardi and E. Santamato, "Role of dye structure in photo induced reorientation of dye-doped liquid crystals", **J. Chem. Phys.**, vol. 113 (2000), pp. 10361-10366.

Chapter in a book

1. M.R. Vetrano and P. Dell'Aversana, "Experiments on Air-Lubricated Liquids: Role of Vapour, Electrostatic Effects, and Heat Transmission across the Interfaces", in **Interfacial Fluid Dynamics and Transport Processes, Lecture Notes in Physics**, Vol. 628 (2002), pp 387-402.

Conferences

1. Maria Rosaria Vetrano, Alessia Simonini, Johan Steelant and Patrick Rambaud, "Temperature and concentration measurements in a flashing ethanol jet : Application to space propulsion" **Sixth International Conference on two-phase systems for ground and space applications**, Cava de' Tirreni, Italy, September 2011
2. M. R. Vetrano, E. Cecchi, P. Rambaud and J. –M. Buchlin, "Carécterisation d'une trempe supersonique par extinction laser" in proceedings of **12^{eme} Congres francophone de technique laser**, Vandoeuvre-lès-Nancy, France, September, 2010.
3. M.R. Vetrano, F. Lebeau, A. Parente, M.L. Riethmuller, "Droplet internal recirculation measurement by micro-PIV" in proceedings of the **7th International Conference on Multiphase Flow (ICMF)**, Tampa, USA May June 2010.

4. M. Khalid, J. –M. Muylaert, V. Van der Haegen, C. O. Asma, M. R. Vetrano and J. – M. Buchlin, “Feasibility for an ESA planetary plume surface interaction facility” **Space Propulsion 2010 Conference**, San Sebastian, Spain May 2010.
5. J.-M. Muylaert, R. Reinhard, C. O. Asma, J.-M. Buchlin, P. Rambaud, and M. R. Vetrano, “QB50, an international network of 50 cubesats for multi-point, in-situ measurements in the lower thermosphere and for re-entry research” **ESA Atmospheric Science Conference** Barcelona, Spain September 2009.
6. M. R. Vetrano, V. Ruwet, F. Lebeau, P. Corieri, J. van Beeck and M. Riethmuller “Applications de la micro-PIV dans des écoulements libre et confiné” in proceedings of **11^{eme} Congrès francophone de technique laser**, Futuroscope, France, September, 2008.
7. M.R. Vetrano, F. Lebeau, P. Rambaud and J.-M. Buchlin, “Correlation law for SMD in high viscous liquids” in proceedings of **22nd European Conference on Liquid Atomization and Spray Systems ILASS08**, Como, Italy, September 2008
8. M. R. Vetrano, J. van Beeck and M. Riethmuller, “Temperature gradient measurements in combustion droplets by standard rainbow thermometry” in proceedings of **22nd European Conference on Liquid Atomization and Spray Systems ILASS08**, Como, Italy, September 2008
9. M. R. Vetrano, J. van Beeck and M. Riethmuller, “Développements récents de la Technique de l’Arc-en-ciel appliquée aux gouttes avec évaporation”, in proceedings of **10^{eme} Congrès francophone de technique laser**, Toulouse, France, September, 2006.
10. M. R. Vetrano, J. van Beeck and J.-M. Buchlin, “Global Rainbow Thermometry as experimental technique for the study of non-isothermal sprays”, in proceedings of **7th National Congress on Theoretical and Applied Mechanics**, Mons, Belgium, May 26-27, 2005.
11. M. R. Vetrano, J. van Beeck and M. Riethmuller, “Mesure de la température d’un spray d’eau chaude par la méthode globale par arc-en-ciel : effet du gradient de température dans les gouttes”, in proceedings of **8^{eme} Congrès francophone de velocimétrie laser**, Brussels, Belgium, September, 2004.
12. M.R. Vetrano and J.P.A.J. van Beeck, “Global Rainbow Thermometry in liquid-liquid suspension”, in proceedings of **9th International Conference on Liquid atomisation and Spray Systems**, Sorrento, Italy, July 13-17, 2003.
13. M.R. Vetrano, J.P.A.J. van Beeck, and M.L. Riethmuller, “Global rainbow thermometry validation in liquid-liquid suspension and applications to water spray”, in proceedings of **6th National Congress on Theoretical and Applied Mechanics**, Ghent, Belgium, May 26-27, 2003.
14. M.R. Vetrano, J.P.A.J. van Beeck, and M.L. Riethmuller, “Global rainbow thermometry validation in liquid-liquid suspension”, in proceedings of **Photonics in Mechanical and Industrial Processes**, Louvain-la-Neuve, Belgium, February 20-21, 2003.

15. M. R. Vetrano, J. van Beeck and M. Riethmuller, "Validation experimentale de simulations de thermometrie par la methode d'arc-en-ciel global", in proceedings of **8^{eme} Congres francophone de velocimetrie laser**, Orsay, France, September, 2002.
16. M. R. Vetrano, J. van Beeck and M. Riethmuller, "Experimental validation of Global Rainbow Thermometry simulations", in proceedings of **Optical Technology and Image Processing For Fluids and Solids Diagnostics**, Bijing, July, 2002.
17. G. P. Neitzel, P. Nagy, P. Dell'Aversana, M. R. Vetrano, J.-C. Chen, C. W. Kuo, "Recent results on Permanent Non-Coalescence and Non-Wetting" **14th U.S. National Congress of Theoretical and Applied Mechanics**, Virginia Tech. Institute, Blacksburg VA, USA, June 2002
18. M. R. Vetrano and P. Dell'Aversana, "Experiments on air-lubricated liquids: Role of vapour, electrostatic effects, and heat transmission across the interfaces", in Proceedings of **First Conference of Int'l. Marangoni Association**, Giessen, Germany, September, 2001.
19. P. Dell'Aversana, M. R. Vetrano and G. P. Neitzel "Drops Sliding upon a Solid Surface Without Wetting" **53rd annual meeting of the American Physical Society Division of Fluid Dynamics**, Washington, 19 –21 November 2000
20. G. P. Neitzel, P. Dell'Aversana, V. Tontodonato and M. R. Vetrano "Principles, limits and microgravity applications of self-lubricated liquids", ", in Proceedings of **First Int'l. Symposium of Microgravity Res. Appl. Phys. Sci. Biotech.**, 1, 109, Sorrento, Italy, September, 2000.