Cobra Probe Reference List

- Carlino, G., Cardano, D. & Cogotti, A. (2007) 'A new technique to measure the aerodynamic response of passenger cars by a continuous flow yawing' in *Vehicle Aerodynamics 2007*, *SP-2066*, (SAE 2007-01-0902), Society of Automotive Engineers International, Warrendale, PA.
- Lindener, N., Miehling, H., Cogotti, A., Cogotti, F. & Maffei, M. (2007) 'Aeroacoustic measurements in turbulent flow on the road and in the wind tunnel' in *Vehicle Aerodynamics 2007*, *SP-2066*, (SAE 2007-01-1551), Society of Automotive Engineers International, Warrendale, PA.
- Watkins, S., Milbank, J., Loxton, B.J. & Melbourne, W.H. (2006) 'Atmospheric winds and their implications for microair vehicles', *AIAA Journal*, **44** (11): 2591-2600.
- Ng, E., Watkins, S. & Johnson, P. (2004) 'New pressure-based methods for quantifying radiator airflow', *Proc. Instn Mech. Engrs, Part D: Journal of Automobile Engineering*, **218**: 361-372.
- Mallipudi, S., Selig, M. & Long, K., (2004) 'Use of a four-hole Cobra pressure Probe to determine the unsteady wake characteristics of rotating objects', In *24th AIAA Aerodynamic Measurement Technology and Ground Testing Conference*, *28 June 1 July*, Portland, Oregon, American Institute of Aeronautics and Astronautics, AIAA 2004-2299.
- Mallipudi, S., (2004) 'Determination of rotating object wake characteristics with application to the US Navy', MSc thesis, Aerospace Engineering, University of Illinois, Urbana-Champaign, USA.
- Cochrane, L. (2004), 'New developments in commercial wind engineering', Invited paper in *International Workshop on Wind Engineering & Sciences*, *Oct 2004*, New Delhi, India.
- Cheung, J.C.K., Eaddy, M. & Melbourne, W.H. (2003) 'Wind tunnel modelling of neutral boundary layer flow over mountains' in *Proceedings of the 11th International Conference on Wind Engineering*, Lubbock, Texas, ed. K. C. Mehta: 2837- 2844.
- Eaddy, M., Melbourne, W.H. & Sheridan, J. (2003) 'Cross wind forces on rough circular cylinders in turbulent flow' in *Proceedings of the 11th International Conference on Wind Engineering*, Lubbock, Texas, ed. K. C. Mehta: 2461-2468.
- Holmes, J.D. (2003) 'Emerging issues in Wind Engineering Part 2' in *The Wind Engineer*, newsletter of the American Association for Wind Engineering (AAWE), Fort Collins, CO, USA, Sept: 1-8.
- Stephens, A., Watkins, S. & Dixon, C. (2003) 'Aerodynamic testing of a vented disc brakes' in *SAE Technical Paper Series*, Society of Automotive Engineers International, Warrendale, PA, SAE 2003-01-0932.
- Vino, G., Watkins, S. & Mousley, P.D. (2003) 'The passenger vehicle wake under the influence of upstream turbulence' in *Vehicle Aerodynamics*, *SP-1786*, (SAE 2003-01-0650), Society of Automotive Engineers International, Warrendale, PA.
- Watkins, S. (2003) 'Development of a micro air vehicle', *The Aeronautical Journal*, February, **107**(1068): 117-123.
- Bennett, L. (2002) 'Modelling and Testing of Air Flow in an Automotive Air Conditioning System', MEng thesis, Mechanical & Manufacturing Engineering, RMIT University, Melbourne, Australia.
- Bennett, L., Dixon, C. & Watkins, S. (2002) 'Modelling and testing of air flow in a HVAC module' in *Vehicle Aerodynamics*, *SP-1679*, (SAE 2002-01-0506), Society of Automotive Engineers International, Detroit, USA.
- Eaddy, M., Melbourne, W.H. & Sheridan, J. (2002) 'Crosswind force on rough circular cylinders in turbulent flow' in *Proceedings of the 55th Annual Meeting of the Division of Fluid Dynamics*, *Dallas*, *Texas*, *Nov 2002*, American Physical Society, **47**(10): [Abstract only].
- Gilhome, B.R. (2002) 'Unsteady and time-averaged near-wake flow over the rear of sedan automobiles', PhD thesis, Mechanical Engineering, Monash University, Melbourne, Australia.
- Gilhome, B.R. & Saunders, J.W. (2002) 'The effect of turbulence on peak and average pressures on a car door' in *Vehicle Aerodynamics*, *SP-1667*, (SAE 2002-01-0253), Society of Automotive Engineers International, Detroit, USA: 225-235.
- Guo, Y. & Wood, D.H. (2002) 'Measurements in the vicinity of a stagnation point', *Experimental Thermal and Fluid Science*, **25**: 605-614.
- Ng, E. (2002) 'Vehicle Engine Cooling Systems: Assessment and improvement of wind-tunnel based evaluation methods', PhD thesis, School of Aerospace, Mechanical & Manufacturing Engineering, RMIT University, Melbourne, Australia.
- Ng, E., Watkins, S., Johnson, P. & Mole, L. (2002) 'Use of a pressure-based technique for evaluating the aerodynamics of vehicle cooling systems' in *Vehicle Aerodynamics*, *SP-1667*, (SAE 2002-01-0712), Society of Automotive Engineers International, Detroit, USA: 71-82.

- Watkins, S. (2002) 'Development of a micro air vehicle' in *Unmanned Air Vehicle Systems*, *Seventeenth International Conference*, 8 10 April, University of Bristol, Bristol, UK: 20-1 to 20-10.
- Watkins, S., Mousley, P.D. & Hooper, J.D. (2002) 'Measurement of fluctuating flows using multi-hole probes' in *Proceedings of the 9th International Congress of Sound and Vibration, Orlando, Florida, USA, 8-11 July*, International Institute of Acoustics and Vibration (IIAV).
- Alam, F., Watkins, S., Zimmer, G. & Humphris, C. (2001) 'Effects of vehicle A-pillar shape on local mean and time-varying flow properties' in *Vehicle Aerodynamics*, *SP-1600*, (SAE 2001-01-1086), Society of Automotive Engineers International, Warrendale, PA: 265-275.
- Gilhome, B.R., Saunders, J.W. & Sheridan, J. (2001) 'Time averaged and unsteady near-wake analysis of vehicles' in *Vehicle Aerodynamics Design and Technology, SP-1600*, (SAE 2001-01-1040), Society of Automotive Engineers International, Detroit, USA: 191-208.
- Guo, Y. & Wood, D.H. (2001) 'Instantaneous velocity and pressure measurements in turbulent mixing layers', *Experimental Thermal and Fluid Science*, **24**: 139-150.
- Hooper, J.D. & Watkins, S. (2001) 'Mean velocity, Reynolds stress and static pressure measurements in an air cyclone' in *Proceedings of the 14th Australasian Fluid Mechanics Conference, Adelaide University, Adelaide, Australia, 10-14 December*, Causal Productions, Adelaide, Australia.
- Mousley, P.D., Watkins, S. & O'Shea, P. (2001) 'Modulation of in-cabin car wind noise by atmospheric winds' in *Proceedings of the Eighth International Congress on Sound & Vibration*, The International Institute of Acoustics and Vibration (IIAV), Hong Kong: 533-540.
- Ng, E., Watkins, S., Johnson, P. & Mole, L. (2001) 'Measuring local time-averaged airflow velocity through an automotive heat exchanger' in *Proceedings of the 14th Australasian Fluid Mechanics Conference, Adelaide University, Adelaide, Australia, 10-14 December*, Causal Productions, Adelaide, Australia.
- Watkins, S., Mousley, P.D., Milbank, J. & Alam, F. (2001) 'Aeroacoustic noise and the motor vehicle: Research at RMIT University', *Acoustics Australia*, December 2001, **29**(3): 111-115.
- Watkins, S., Riegel, M. & Wiedemann, J. (2001) 'The effect of turbulence on wind noise: A road and wind-tunnel study' in *Automotive and Engine Technology*, *4th Stuttgart International Symposium*, *20-22 February*, eds. M. Bargende & J. Wiedemann, expert verlag, Stuttgart, Germany, **2:** 326-340.
- Zimmer, G., Alam, F., Watkins, S. & Peric, C. (2001) 'Comparison of high blockage wind tunnel, open jet wind tunnel and on-road testing with respect to exterior surface pressures' in *Vehicle Aerodynamics*, *SP-1600*, (SAE 2001-01-1087), Society of Automotive Engineers International, Detroit, USA: 277-284.
- Chen, J., Haynes, B.S. & Fletcher, D.F. (2000) 'Cobra probe measurements of mean velocities, Reynolds stresses and higher-order velocity correlations in pipe flow', *Experimental Thermal and Fluid Science*, **21**: 206-217.
- Milbank, J., Watkins, S. & Kelso, R. (2000) 'Development of a small-scale aeroacoustic open jet, open return wind tunnel for cavity noise and component testing' in *Vehicle Aerodynamics*, *SP-1524*, (SAE 2000-01-0867), Society of Automotive Engineers International, Detroit, USA: 195-206.
- Mousley, P.D. & Watkins, S. (2000) 'A method of flow measurement about full-scale and model-scale vehicles' in *Vehicle Aerodynamics*, *SP-1524*, (SAE 2000-01-0871), Society of Automotive Engineers International, Detroit, USA: 263-271.
- Saunders, J.W. & Mansour, R.B. (2000) 'On-road and wind tunnel turbulence and its measurement using a four-hole dynamic probe ahead of several cars' in *Vehicle Aerodynamics*, *SP-1524*, (SAE 2000-01-0350), Society of Automotive Engineers International, Detroit, USA: 5-24.
- Oswald, G. (1999) 'Influence of aerodynamics on the operating performance of automotive external rear view mirrors', PhD thesis, Department of Mechanical & Manufacturing Engineering, RMIT University, Melbourne, Australia.
- Chen, J., Fletcher, D.F. & Haynes, B.S. (1998) 'Validation of the cobra probe using turbulence measurements in a fully developed pipe flow' in *Proceedings of the 13th Australasian Fluid Mechanics Conference*, *13 18 Dec*, eds. M. C. Thompson & K. Hourigan, Monash University, Melbourne, Australia, **1:** 385-388.
- Guo, Y., Hooper, J.D. & Wood, D.H. (1998) 'Instantaneous velocity and pressure measurements in a plane turbulent mixing layer' in *Proceedings of the 13th Australasian Fluid Mechanics Conference*, *13 18 Dec*, eds. M. C. Thompson & K. Hourigan, Monash University, Melbourne, Australia, **1:** 35-38.
- Mousley, P.D., Watkins, S. & Hooper, J.D. (1998) 'Use of a hot-wire anemometer to examine the pressure signal of a high-frequency pressure probe' in *Proceedings of the 13th Australasian Fluid Mechanics Conference*, *13 18 Dec*, eds. M. C. Thompson & K. Hourigan, Monash University, Melbourne, Australia, **1:** 395-399.

- Hooper, J.D. & Musgrove, A.R. (1997) 'Reynolds stress, mean velocity, and dynamic static pressure measurement by a four-hole pressure probe', *J. Exp Thermal and Fluid Science*, **15**: 375-383.
- Schneider, G.M., Hooper, J.D., Musgrove, A.R., Nathan, G.J. & Luxton, R.E. (1997) 'Velocity and reynolds stresses in a precessing, deflected jet', *Experiments in Fluids*, **22**: 489-495.
- Schneider, G.M. (1996) 'Structures and turbulence characteristics in a precessing jet flow', PhD thesis, Department of Mechanical Engineering, University of Adelaide, Adelaide, Australia.
- Hooper, J.D. & Musgrove, A.R. (1995) 'Pressure probe measurements of Reynolds stresses and static pressure fluctuations in developed pipe flow' in *Proceedings of the Twelfth Australasian Fluid Mechanics Conference*, Sydney, Australia: 565.
- Hooper, J.D. & Musgrove, A.R. (1995) 'Pressure-velocity correlations in swirling pipe flow' in *Proceedings* of the Twelfth Australasian Fluid Mechanics Conference, Sydney, Australia: 557.
- Guzman, D., Fletcher, D.F. & Hooper, J.D. (1994) 'Computational investigation of cobra probe operation', *Int J. of Numerical Methods for Heat and Fluid Flow*, **4**(5): 425-445.
- Schneider, G.M., Hooper, J.D., Musgrove, A.R., Nathan, G.J. & Luxton, R.E. (1994) 'Velocity and reynolds stresses in a precessing, deflected jet' in *Proceedings of the 2nd International Conference in Experimental Fluid Mechanics*, *July 4-8*, Torino, Italy.
- Musgrove, A.R. & Hooper, J.D. (1993) 'Pressure probe measurement of the turbulent stress distribution in a swirling jet' in *Proceedings of the 3rd World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics*, *31 Oct 5 Nov*, eds. M. D. Kelleher, R. K. Shahet al, Elsevier Science Publishers, Honolulu, USA, **1:** 172-179.
- Schneider, G.M., Vidakovic, S.S., Hooper, J.D., Musgrove, A.R., Nathan, G.J. & Luxton, R.E. (1993)

 'Theoretical and experimental pressure field evaluation downstream of a mechanically precessing jet' in *Proceedings of the 5th Australasian Heat and Mass Transfer Conference, December 6-9*, Brisbane, Australia.
- Hooper, J.D. & Musgrove, A.R. (1991) 'Multi-hole pressure probes for the determination of the total velocity vector in turbulent single-phase flow' in *Proceedings of the 4th International Symposium on Transport Phenomena in Heat and Mass Transfer*, ed. J. A. Reizes, Pacific Centre of Thermal-Fluids Engineering, Sydney, Australia, **4:** 1364.