

## Refereed Academic Research Papers

1. Marqués-Bruna, P. and Grimshaw, P.N. (1997). Three-dimensional kinematics of overarm throwing action of children age between 15 to 30 months. *Perceptual and Motor Skills*, **84**: 1267-1283.
2. Grimshaw, P.N., Marqués-Bruna, P., Salo, A. and Messenger, N. (1998). The three-dimensional kinematics of the walking gait cycle of children aged between 10 and 24 months: cross-sectional and repeated measures. *Gait & Posture*, **7**, 7-15.
3. Marqués-Bruna, P. and Grimshaw, P.N. (1998). Variability in the development of overarm throwing: a longitudinal case study over the first 6 months of throwing. *Perceptual and Motor Skills*. **86**: 1403-1418.
4. Marqués-Bruna, P. and Grimshaw, P.N. (2000). Measuring development of a child's early walking: implications for clinical assessment of gait. *Perceptual and Motor Skills*. **90**: 1176-1178.
5. Marqués-Bruna, P. and Grimshaw, P.N. (2000). Changes in coordination during the first 8 months of independent walking. *Perceptual and Motor Skills*. **91**: 855-869.
6. Marqués-Bruna, P., Lees, A. and Scott, M. (2003). An integrated analytical model for the qualitative assessment of kicking effectiveness in football. In Reilly, T., Cabri, J. and Araujo, D. (Eds.). *Science and football V*. London: Routledge. Pp. 60-65.
7. Marqués-Bruna, P. and Grimshaw, P.N. (2004). Reliability of gait parameters in children under two years of age. *Perceptual and Motor Skills*. **98**: 123-130.
8. Marqués-Bruna, P., Lees, A. and Scott, M. (2007). Development of technique in soccer. *International Journal of Coaching Science*. **1** (2): 51-62.
9. Marqués-Bruna, P., Lees, A. and Grimshaw, P.N. (2008). Structural principal components analysis of the kinematics of the soccer kick using different types of rating scales. *International Journal of Sports Science and Coaching*. **3** (1): 73-85.
10. Marqués-Bruna, P. and Grimshaw, P.N. (2008). Aerodynamic effects of road topography and meteorological conditions on time-trialling cycling performance. *International Journal of Sports Science and Coaching*. **3** (2): 155-167.
11. Marqués-Bruna, P. and Grimshaw, P.N. (2009). Mechanics of flight in ski jumping: Aerodynamic stability in pitch. *Journal of Sports Technology*. **2** (1-2): 24-31.

12. Marqués-Bruna, P. and Grimshaw, P.N. (2009). Mechanics of flight in ski jumping: Aerodynamic stability in roll and yaw. *Journal of Sports Technology*. **2** (3-4): 111-120.
13. Grimshaw, P.N., Kestell, C., Arjomandi, M., Marqués-Bruna, P., Mackintosh, S. and de Jonge, M. (2009). The anatomy of Engineering education: Parallels in teaching the practical aspects of Anatomy and Engineering. *20<sup>th</sup> Australasian Association for Engineering Education Conference*. University of Adelaide. 6-9 December. Pp. 715-725. ISBN: 1-876346-59-0
14. Marqués-Bruna, P. and Grimshaw, P.N. (2011). Design of the Grand Touring sports car wing. *Proceedings of the Institution of Mechanical Engineers, Part P, Journal of Sports Engineering and Technology*. **225**(1): 22-31.
15. Marqués-Bruna, P. and Grimshaw, P.N. (2011). Formula 1 aerodynamics: Versatility of the NLF(1)-0414F airfoil at low Reynolds numbers. *14<sup>th</sup> Australian International Aerospace Congress*. 28 February - 3 March 2011, Melbourne, Australia. Concurrent Session 2I. Pp. 1-10.
16. Marqués-Bruna, P. (2011). Engineering the race car wing: Application of the vortex panel numerical method. *Journal of Sports Engineering*. **13**(4): 195-204.
17. Marqués-Bruna, P. (2012). Wing design with a twist: Optimised geometric twist of the Grand Touring sports car wing. *Proceedings of the 12<sup>th</sup> Pan American Congress of Applied Mechanics (PACAM XII). Fluid Mechanics Symposium*. 2<sup>nd</sup> – 6<sup>th</sup> January, Port of Spain, Trinidad & Tobago. Pp. 1-6.
18. Marqués-Bruna, P. (2012). Design of the Grand Touring sports car wing: Geometric and aerodynamic twist. *Proceedings of the Institution of Mechanical Engineers, Part P, Journal of Sports Engineering and Technology*. **Published online, printed publication pending**.
19. Marqués-Bruna, P. and Spiridon, E. (2013). Numerical modelling of aerodynamics for applications in sports car engineering. *2013 Maui International Engineering Education Conference*. 3<sup>rd</sup> – 5<sup>th</sup> January, Maui, Hawaii. Pp. 1-10.
20. Marqués-Bruna, P. and Spiridon, E. (2013). Adaptive wing technology, aeroelasticity and flight stability: The lessons from natural flight. *2013 Maui International Engineering Education Conference*. 3<sup>rd</sup> – 5<sup>th</sup> January, Maui, Hawaii. Pp. 11-20.

### Refereed Conference Proceedings (Abstracts)

1. Grimshaw, P.N. and Marqués-Bruna, P. (1997). Three-dimensional kinematic analysis of the motor development pattern in children's walking gait: repeated measures aged 10 and 17 months and re-examination at 18 and 24 months respectively. *5th ESMAC International Conference*. Dublin (Ireland), September (accepted June 1996). *Gait & Posture*.
2. Marqués-Bruna, P., Lees, A. and Scott, M. (2001). The application of mechanical principles to study sports technique development in children. *6<sup>th</sup> Annual Congress of the European College of Sport Science*. Cologne. Germany. July.
3. Marqués-Bruna, P. and Grimshaw, P.N. (2001). Is kinematic variability a normal component of early gait development? *1<sup>st</sup> Annual Conference on Biomechanics of Lower Limb in Health, Disease and Rehabilitation*. University of Salford. September.
4. Marqués-Bruna, P., Lees, A. and Scott, M. (2002). Visual perception of mechanical variables for the analysis of technique in sport. *7<sup>th</sup> Annual Congress of the European College of Sport Science*. Athens. Greece. July.
5. Marqués-Bruna, P., Lees, A. and Scott, M. (2003). Development of mechanical effectiveness of the soccer kick in children. *8<sup>th</sup> Annual Congress of the European College of Sport Science*. Salzburg. Austria. July.
6. Hogg, R.A., Sanchez, X. and Marqués-Bruna, P. (2005). Rule changes in Formula 1: Their impact on the 2003-season racing performance. *Journal of Sports Sciences*. 23(2), 165-166.
7. Marqués-Bruna, P., Lees, A. and Scott, M. (2006). Assessing technical level in the execution of the overarm throw: Implications for the study of motor development. *11<sup>th</sup> Annual Congress of the European College of Sport Science*. Lausanne. Switzerland. July.
8. Marqués-Bruna, P., Lees, A., Scott, M. and Grimshaw, P.N. (2007). What type of rating scale is more accurate for visually estimating relevant biomechanical variables of the soccer kick? *12<sup>th</sup> Annual Congress of the European College of Sport Science*. Jyväskylä. Finland. July.
9. Spiridon, E. and Marqués-Bruna, P. (2008). The impact of emotions on pattern recognition of climbing wall routes. *13<sup>th</sup> Annual Congress of the European College of Sport Science*. Estoril. Portugal. July.
10. Spiridon, E. and Marqués-Bruna, P. (2008). Manipulation of positive affect in sport climbing using music. *13<sup>th</sup> Annual Congress of the European College of Sport Science*. Estoril. Portugal. July.

11. Marqués-Bruna, P. and Grimshaw, P.N. (2008). Aerodynamic drag force and power when cycling in different meteorological conditions. *13<sup>th</sup> Annual Congress of the European College of Sport Science*. Estoril. Portugal. July.
12. Marqués-Bruna, P. and Grimshaw, P.N. (2008). Aerodynamic effects of road topography at three different levels of cycling performance. *13<sup>th</sup> Annual Congress of the European College of Sport Science*. Estoril. Portugal. July.
13. Marqués-Bruna, P. and Grimshaw, P.N. (2009). The use of computer aided design (CAD) for the construction of an inertia rigid model of the ski jumper. *14<sup>th</sup> Annual Congress of the European College of Sport Science*. Oslo. Norway. June.
14. Marqués-Bruna, P. and Grimshaw, P.N. (2009). Optimization of aerodynamic stability in ski jumping: The tug-of-war between safety and performance. *14<sup>th</sup> Annual Congress of the European College of Sport Science*. Oslo. Norway. June.

#### **Invited Seminar Presentations**

1. Marqués-Bruna, P. (2009). Mechanics of flight in ski jumping: Aerodynamic stability in pitch, roll and yaw. *A seminar presented at the School of Mechanical Engineering*. University of Adelaide. Australia. October.

#### **Professional Papers**

1. Karageorghis, C. and Marqués-Bruna, P. (2000). 'Sprinting (Part one): How you can go faster'. *Ultra-fit Magazine*. September. Pp. 82-84.
2. Karageorghis, C. and Marqués-Bruna, P. (2000). 'Sprinting (Part two): How you can go faster'. *Ultra-fit Magazine*. October. Pp. 90-93, 94.
3. Karageorghis, C. and Marqués-Bruna, P. (2002). 'Aero-culture'. *Ultra-fit Magazine*. September. Pp. 86-88, 90.
4. Karageorghis, C. and Marqués-Bruna, P. (2002). 'Take a walk on the wild side: Trekking in the Atlas Mountains'. *Ultra-fit Magazine*. 12 (8): 110-112.