

## Dr François-Xavier Li PhD

Lecturer in Motor Control and Learning  
Admission Tutor  
Theme Leader "Optimal Performance"

**[School of Sport, Exercise and Rehabilitation Sciences \(/schools/sport-exercise/index.aspx\)](/schools/sport-exercise/index.aspx)**

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### About

Dr François-Xavier Li is primarily interested in the optimisation of movement in a variety of contexts, population (elite to elderly) and tasks (running, cycling, golf, walking). He is also Admissions Tutor for the BSc Sport, Exercise and Rehabilitation Sciences

### Feedback and office hours

Office hours: Tuesday 2:30 - 4:30 pm

### Qualifications

- HDR (Sport Sciences, University of the Mediterranean, France)
- PhD (Sport Sciences, University of the Mediterranean, France)
- Master (Sport Sciences, University of the Mediterranean, France)
- Master (Computer Sciences, University of the Mediterranean, France)
- BSc (Sport Sciences, University of the Mediterranean, France)

### Biography

François-Xavier studied Sport Sciences, Psychology and Computer Sciences in Marseille, France, where he completed his PhD and HDR in Sport Sciences, before taking a post doc position in UK and then moving to Birmingham. He also competed in a variety of sports, including sailing at international level. He now concentrates on Ironman triathlons and ultra marathons.

### Teaching

Admissions Tutor for BSc Sport and Exercise Science.

I teach in two degrees:

#### **BSc Sport and Exercise Science:**

- Applied Motor Control (3rd year)
- Final year research projects
- Sensation and Movement (2nd year)

#### **MSc / PGDip Exercise and Sports Medicine (Football) /MSc Exercise and Sport (Sciences):**

- Continuous Professional Development
- Neuromuscular Adaptation

### Postgraduate supervision

Main supervisor:

- Xavier Disley
- Ben Langdown
- Danique Fintelman
- Laura Bowen
- Borut Fonda

- Simon Franklin

Second supervisor:

- Maria Ntolooulou
- Mark Van der Ruit
- Luke Wilkins
- Jawad Abualhasan

## PhD opportunities

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## Research

- Motor Control & Learning
- Optimisation of performance
- Ageing
- Motor rehabilitation
- Endurance and fatigue
- Running, cycling, triathlon, golf

His research interests include the coordination and optimisation of movement in various sporting actions (running, cycling, triathlon, golf), perception-action coupling, movement coordination and motor rehabilitation in special population (e.g. elderly). The techniques used include 3D motion analysis, electromyography, ground force reaction. The experimental work in laboratory is complemented by field studies at international competitions and professional clubs as race conditions and competition cannot fully be replicated in the laboratory. He is the manager of the [Kinesiology Laboratory \(/facilities/kinesiology-lab/index.aspx\)](http://www.bham.ac.uk/facilities/kinesiology-lab/index.aspx).

## Other activities

Linking fundamental work and applied sport sciences, François-Xavier is consultant to the Jamaican Track & Field team, several elite triathletes and writes in triathlon magazines (French, British and German). His favourite hobbies include racing Ironman distance triathlons, ultra marathons and sailing.

## Publications

Fintelman, DM., Sterling, M., Hemida, H. & Li, F-X. (2014). Optimal cycling time trial position models: aerodynamics versus power output and metabolic energy. *Journal of Biomechanics*. (<http://dx.doi.org/10.1016/j.jbiomech.2014.02.029>)

Fonda, B, Sarabon, N & Li, F-X. (2014). Validity and reliability of different kinematics methods used for bike fitting. *Journal of Sport Sciences*. (ID: 868919 DOI:10.1080/02640414.2013.868919)

Connick, M. & Li, F-X. (2014). Changes in timing of muscle contractions and running economy with altered stride pattern during running. *Gait & Posture*, 39, 1, 634-637. (<http://dx.doi.org/10.1016/j.gaitpost.2013.07.112>)

Disley, X & Li, F-X. (in press). Metabolic and Kinematic Effects of Self Selected Q Factor During Bike Fit. *Research in Sports Medicine* (DOI:10.1080/15438627.2013.852093).

Connick, MJ & Li, F-X. (2013). **The impact of altered task mechanics on timing and duration of eccentric bi-articular muscle contractions during cycling** (<http://www.ncbi.nlm.nih.gov/pubmed/23010605>). *Journal of Electromyography and Kinesiology*, 23 (2013): 223-229.

Disley, B.X. & Li, F-X. (2012). **The effect of Q Factor on gross mechanical efficiency and muscular activation in cycling** (<http://www.ncbi.nlm.nih.gov/pubmed/22612455>). *Scandinavian Journal of Medicine and Science in Sports*,

Langdown, B.L., Bridge, M. & Li, F-X. (2012). **Movement variability in the golf swing** (<http://www.tandfonline.com/doi/abs/10.1080/14763141.2011.650187>). *Sports Biomechanics*, 11, 2, 273-287.

Scarfe, AC, Li, F-X, Reddin, DB & Bridge MW (2011). **A new progression scale for common lower limb rehabilitation tasks** ([http://journals.lww.com/nsca-jscr/Abstract/2011/03000/A\\_New\\_Progression\\_Scale\\_for\\_Common\\_Lower\\_Limb.6.aspx](http://journals.lww.com/nsca-jscr/Abstract/2011/03000/A_New_Progression_Scale_for_Common_Lower_Limb.6.aspx)). *Journal of Strength and Conditioning Research*, 25(3), 612-619.

Pepping, G-J. & Li, F-X. (2008). **Effect of response mode on exploration time in the detection of affordances for overhead reaching** (<http://www.tandfonline.com/doi/abs/10.3200/JMBR.40.6.491-498>). *Journal of Motor Behavior*, 40(6), 491-498.

Sheppard, A. & Li, F-X (2007). **Expertise and the control of interception in table tennis** (<http://www.tandfonline.com/doi/abs/10.1080/17461390701718505>). *European Journal of Sport Science*, 7, 4, 213-230.

Pepping, G-J. & Li, F-X. (2005). **Effects of Response Task on Reaction Time and the Detection of Affordances** ([http://cis94.bham.ac.uk:7778/rae\\_pdf\\_files/46/o\\_0110\\_46\\_17066-40136.pdf](http://cis94.bham.ac.uk:7778/rae_pdf_files/46/o_0110_46_17066-40136.pdf)). *Motor Control*, 9, 129-143.

Li, F-X., Fewtrell, D. & Jenkins, M. (2004). **String vibration dampers do not reduce racket frame vibration transfer to the forearm** (<http://dx.doi.org/10.1080/02640410410001729982>). *Journal of Sport Sciences*, 22, 1041-1052.

Delevoeye-Turrell, Y., Li, F-X. & Wing, A.M. (2003). **Efficiency of grip force adjustments for impulsive loading during imposed and actively produced collisions** (<http://dx.doi.org/10.1080/02724980245000025>). *Quarterly Journal of Experimental Psychology A*, 56 (7), 1113-1128.

Li, F-X. & Turrell, Y. (2002). **Control of Grip Force in sport interceptive actions**. In K., Davids, S. Bennett, G. Savelsbergh & J. Van der Kamp (pp. 301-310). **Routledge: London**. ([http://www.sportex.bham.ac.uk/staff/lifx\\_files/Control%20GF%20sport%202002.pdf](http://www.sportex.bham.ac.uk/staff/lifx_files/Control%20GF%20sport%202002.pdf)) In K., Davids, S. Bennett, G. Savelsbergh & J. Van der Kamp (pp. 301-310). Routledge: London.

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Li, F-X., Margetts, S. & Fowler, I. (2001). **Use of 'chalk' in rock climbing: sine qua non or myth?** (<http://dx.doi.org/10.1080/026404101750070148>) *Journal of Sport*

Turrell, Y.N., Li F-X., & Wing A.M. (2001). **Estimating the minimum grip force required when grasping objects under impulsive loading conditions.** *Behavior Research Methods, Instruments, & Computers*, 33 (1), 38-45. ([http://www.sportex.bham.ac.uk/staff/lifx\\_files/Estimating%20GF%202001.pdf](http://www.sportex.bham.ac.uk/staff/lifx_files/Estimating%20GF%202001.pdf)) Behavior Research Methods, Instruments, & Computers, 33 (1), 38-45.

Pepping, G-J. & Li, F-X. (2000). **Sex differences and action scaling in overhead reaching.** *Perceptual and Motor Skills*, 90, 1123-1129. ([http://www.sportex.bham.ac.uk/staff/lifx\\_files/Over%20Head%20Reaching%20PMS%202000.PDF](http://www.sportex.bham.ac.uk/staff/lifx_files/Over%20Head%20Reaching%20PMS%202000.PDF)) Perceptual and Motor Skills, 90, 1123-1129.

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