

UNIVERSITÀ DEGLI STUDI DI MILANO

Procedura di selezione per la chiamata a professore di II fascia da ricoprire ai sensi dell'art. 18, comma 1, della Legge n. 240/2010 per il settore concorsuale 06/N2 - SCIENZE DELL'ESERCIZIO FISICO E DELLO SPORT, (settore scientifico-disciplinare M-EDF/02 - METODI E DIDATTICHE DELLE ATTIVITA' SPORTIVE) presso il Dipartimento di Scienze Biomediche per la Salute, (avviso bando pubblicato sulla G.U. n. D.R. 3035/2024 del 23/04/2024) - Codice concorso 5536

**[Massimiliano Ditroilo]
CURRICULUM VITAE**

(N.B. IL CURRICULUM NON DEVE ECCEDERE LE 30 PAGINE E DEVE CONTENERE GLI ELEMENTI CHE IL CANDIDATO RITIENE UTILI AI FINI DELLA VALUTAZIONE.

LE VOCI INSERITE NEL FACSIMILE SONO A TITOLO PURAMENTE ESEMPLIFICATIVO E POSSONO ESSERE SOSTITUITE, MODIFICATE O INTEGRATE)

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	DITROILO
NOME	MASSIMILIANO
DATA DI NASCITA	██████████

TITOLI**TITOLO DI STUDIO**

(indicare la Laurea conseguita inserendo titolo, Ateneo, data di conseguimento, ecc.)

1992-1999 Laurea in Science Biologiche (con lode), Università' di Urbino
1989-1992 Diploma in Educazione fisica (con lode), Università' di Urbino

TITOLO DI DOTTORE DI RICERCA O EQUIVALENTI, OVVERO, PER I SETTORI INTERESSATI, DEL DIPLOMA DI SPECIALIZZAZIONE MEDICA O EQUIVALENTE, CONSEGUITO IN ITALIA O ALL'ESTERO

(inserire titolo, ente, data di conseguimento, ecc.)

2009-2012 PhD in Muscle Biomechanics, School of Public Health, Physiotherapy and Population Science, Health Science Centre, University College Dublin (Ireland)

ALTRI TITOLI CONSEGUITI

(inserire titolo, ente, data di conseguimento, ecc.)

2022-2023	Digital Badge for Universal Design in Teaching and Learning, University College Dublin (Ireland)
2015-2016	Developing leadership programme, University of Hull (UK)
2013-2014	Post-graduate Certificate in Academic Practice (PCAP), University of Hull (UK)
2013-present	Fellow of the Higher Education Academy (UK)
2019-present	Fellow of the European College of Sport Science (ECSS)

2020-present	Professional member of the British Association of Sport and Exercise Sciences (BASES)
2023-present	Member of the International Society of Electrophysiology and Kinesiology (ISEK)

POSIZIONI RICOPERTE ED ESPERIENZE ACCADEMICHE

2024 (Jan-Dec)	Visiting appointment - Eindhoven University of Technology, Eindhoven, The Netherlands
2015-present	Lecturer/Assistant professor in Sport and Exercise Science, University College Dublin. https://people.ucd.ie/massimiliano.ditroilo . Currently on research sabbatical until 31/12/24
2016-2023	Programme director, MSc Coaching Science in Sport, University College Dublin.
2021 (October)	Visiting appointment - Friedrich-Alexander University Erlangen-Nürnberg, Germany
2016 (October)	Visiting appointment (Erasmus +) - University of Beira Interior Covilhã, Portugal
2012-2015	Lecturer in Sport and Exercise Biomechanics, University of Hull
2015 (January)	Visiting appointment - University of Technology Sydney, Australia
2003-2008	Tecnico laureato, Università di Urbino
1996-2003	Assistente, Università di Urbino

ATTIVITÀ DIDATTICA

INSEGNAMENTI E MODULI

(inserire periodo [gg/mm/aa inizio e fine], anno accademico, corso laurea, numero di ore frontali, eventuale CFU)

2020-2023	Exercise & Public Health, BSc students. University College Dublin (Ireland). Delivery of some classes (about 6 hours), contribution to assessment
2016-2023	Neuromuscular and Biomechanical Laboratory Testing, BSc students. University College Dublin. Module coordinator. Delivery of most classes (about 30 hours), including assessment
2016-2023	Research Methods and Applied Statistics, MSc students. University College Dublin. Module coordinator. Delivery of most classes (about 18 hours), including assessment
2016-2019	Exercise in the Life Span, BSc students. University College Dublin. Module coordinator. Delivery of most classes (about 16 hours), including assessment
2012-2014	Human Anatomy for Sport, Physical Activity and Health, BSc students. University of Hull (UK). Module coordinator. Delivery of most classes (about 24 hours), including assessment
2012-2015	Performance Enhancement and Injury Prevention, BSc students. University of Hull. Module coordinator. Delivery of most classes (about 24 hours), including assessment
2012-2015	Analysis of Human Movement, BSc students. University of Hull. Module coordinator. Delivery of most classes (about 24 hours), including assessment
2006-2008	Biomeccanica applicata, studenti master. Università di Urbino. Titolare dell'insegnamento (circa 20 ore di insegnamento).
2000-2008	Valutazione funzionale, studenti laurea quadriennale. Università di Urbino. Assistente all'insegnamento (circa 6 ore) e agli esami.

2000-2008 Biomeccanica, studenti laurea quadriennale. Università di Urbino. Assistente all'insegnamento (circa 4 ore) e agli esami.

ATTIVITÀ DI DIDATTICA INTEGRATIVA E DI SERVIZIO AGLI STUDENTI

ATTIVITÀ DI RELATORE DI ELABORATI DI LAUREA, DI TESI DI LAUREA MAGISTRALE, DI TESI DI DOTTORATO E DI TESI DI SPECIALIZZAZIONE

(inserire numero, anno accademico, ateneo, corso laurea, ecc.)

2016-2023 Dissertation, MSc students. University College Dublin. Module coordinator. Typically, supervision of 4-5 students each year for their dissertation work

2016-2023 Research Thesis with Biostatistics, BSc students. University College Dublin. Delivery of some classes, supervision of 5-10 students each year for their thesis

ATTIVITÀ DI TUTORATO DI DOTTORANDI DI RICERCA

(inserire anno accademico, corso laurea, ecc.)

Supervision completed:

- R. B. (MSc by research, completed in 2022. Principal supervisor). Profiling and developing drag-flicking ability in field hockey. University College Dublin (Ireland)
- R. C. (MSc by research, completed in 2019. Principal supervisor). Effect of compression by counter-pulsation on performance and sports recovery. University College Dublin (Ireland)
- N. C. (MSc by research, completed in 2019. Principal supervisor). Development of elite adolescent rugby union players in Ireland. University College Dublin (Ireland)
- D. S. (PhD, completed in 2019. Principal supervisor). Methodological aspects and neuromuscular adaptations to complex training. University of Hull (UK)
- G. M. (PhD, completed in 2018. Principal supervisor). The effects of intermittent and continuous exercise on the mechanical properties of bones. University of Hull (UK)
- R. W. (PhD, completed in 2018. Supervisory panel). Ageing and decline of neuromuscular function. University College Dublin (Ireland)
- W. E. (PhD, completed in 2016. Co-supervisor). Thesis title: The effects of intermittent and continuous exercise on the osteogenic index and biomarkers of bone formation. University of Hull (UK)
- L. M. (PhD completed in 2016. Supervisory panel). Thesis title: Neuromuscular Markers of High Performance Sport Preparation: Muscle Contractile Mechanics. University of Stirling (UK)
- D. W. (PhD completed in 2016. Supervisory panel). Thesis title: The effects of fatigue and neuromuscular training on the stiffness characteristics of the human knee joint. University College Dublin (Ireland)
- M. M. (MSc by research completed in 2015. Supervisory panel). Thesis Title: The effects of a 6-week eccentric hamstring training programme on Nordic hamstring exercise performance, knee joint sagittal plane running kinematics and maximum eccentric hamstring strength. University College Dublin (Ireland)

Ongoing supervision:

- M. B. (PhD, 2023 - ongoing. Supervisory panel). Neuromuscular features of rigidity in Parkinson's disease. University of Wolverhampton (UK)
- V. M. (PhD, 2023 - ongoing. Principal supervisor). Using non-invasive wearable technologies to estimate glycemic values in individuals living with Type 1 Diabetes (T1D). University College Dublin (Ireland)
- S. D. (PhD, 2023 - ongoing. Principal supervisor). Return to play after hamstring injuries: contribution of physiological and psychological factors. University College Dublin (Ireland)
- E. D. (PhD, 2019 - ongoing. Principal supervisor). A novel insight into neuromuscular adaptations to training and detraining in a young and older population. University College Dublin (Ireland)
- R. S. (PhD, 2017 - ongoing. Principal supervisor). Fatigue and recovery of the fast stretch shortening cycle in athletics populations. University College Dublin (Ireland)

SEMINARI

(inserire titolo del seminario, luogo, data, ecc.)

Since 2020:

- Velocity based training and reactive strength testing/training, Speaker: Dr E. Flanagan, Dublin, 21/04/23
- Speed and agility training in a team sports environment, Speaker: J. McGinley, Dublin, 10/02/23
- Strength and power diagnostics: test selection and using the information in programme design, Speaker: Dr C. Brady, Dublin, 25/02/22
- Recovery modalities and their applied use post-exercise, Speaker: Dr A. Grainger, Dublin, 11/02/22
- Planning S&C in swimming, Speaker Dr E. McCarthy, online, 05/03/21
- Implementing a Strength and Conditioning Programme for High Performance, Speaker: M. McGurn, online, 26/02/21
- Explosive Strength - its importance, neuromuscular determinants, and training, Speaker: Dr N. Tillin, online, 24/04/20
- Injury prevention in strength and conditioning, Speaker: Dr E. Flanagan, Dublin, 07/02/20

ESAMINATORE

(interno ed esterno, per BSc, MSc, PhD)

Invited external examiner:

4 BSc (University of Technology Sydney)

1 MSc (Auckland University of Technology)

6 PhD (University of Technology Sydney, Institute of Technology Blanchardstown Dublin, Roehampton University London, University of Stirling, Dublin City University, Edith Cowan University Perth)

Invited internal examiner:

3 MSc (University College Dublin, University of Hull)

3 PhD (University College Dublin, University of Hull)

Chair of Examination Committee:

1 PhD (University College Dublin)

ATTIVITÀ DI RICERCA SCIENTIFICA

PUBBLICAZIONI SCIENTIFICHE

(per ciascuna pubblicazione indicare: nomi degli autori, titolo completo, casa editrice, data e luogo di pubblicazione, codice ISBN, ISSN, DOI o altro equivalente)

- Publications: 75 (14 first author, 23 last author)
 - Citations: 2829; h-index: 30; i10-index: 54 (Google Scholar)
1. Smith T, **Ditroilo M**. Force plate coverings significantly affect measurement of ground reaction forces. PLoS One. 2023; 18(11):e0293959
 2. Faria A, Gabriel R, Brás R, Moreira H, Soares M, **Ditroilo M**. Free-oscillation technique: The effect of the magnitude of the impulse applied on muscle and tendon stiffness around the ankle. PLoS One. 2023; 18(6):e0286847
 3. Scott D, **Ditroilo M**, Orange S, Marshall P. The Effect of Complex Training on Physical Performance in Rugby League Players. Int J Sports Physiol Perform. 2023; 18(3):240-247
 4. Scott D, Marshall P, Orange S, **Ditroilo M**. The Effect of Complex Training on Muscle Architecture in Rugby League Players. Int J Sports Physiol Perform. 2023; 18(3):231-239
 5. Romagnoli C, **Ditroilo M**, Bonaiuto V, Annino G, Gatta G. Paddle propulsive force and power balance: a new approach to performance assessment in flatwater kayaking. Sports Biomech. 2022; Online ahead of print
 6. Wallace E, **Ditroilo M**, Exell TA, Robinson M, Vanicek N. Sports medicine and biomechanics - synergies and nuances. J Sports Sci. 2022; 40(8):838-839.
 7. Wu R, De Vito G, Lowery MM, O'Callaghan B, **Ditroilo M**. Age-related fatigability in knee extensors and knee flexors during dynamic fatiguing contractions. J Electromyogr Kinesiol. 2022; 62: 102626
 8. Collins R, **Ditroilo M**, , Horner K, Eusebi S, McGrath D. A Comparison of the Effect of 20- and 40-Min Session Durations of External Counterpulsation on Neuromuscular Function, Cortisol and Comfort in Physically Active Young Men. J Sci Sport Exerc. 2021; 3:138-146
 9. Forte R, **Ditroilo M**, Boreham C, De Vito G. Strength training and gross-motor skill exercise as interventions to improve postural control, dynamic functional balance and strength in older individuals. J Sports Med Phys Fitness. 2021; 61(12):1570-77
 10. Wu R, **Ditroilo M**, Delahunt E, De Vito G. Age-related Changes in Motor Function (II). Decline in Motor Performance Outcomes. Int J Sports Med. 2021; 42(3):215-226
 11. Williamson D, McCarthy E, **Ditroilo M**. Acute Physiological Responses to Ultra Short Race-Pace Training in Competitive Swimmers. J Human Kinetics. 2020; 75(1):95-102
 12. Pratt J, Hoffman A, Grainger A, **Ditroilo M**. Forearm electromyographic activity during the deadlift exercise is affected by grip type and sex. J Electromyogr Kinesiol. 2020; 53: 102428
 13. Wu R, De Vito G, Delahunt E, **Ditroilo M**. Age-related Changes in Motor Function (I). Mechanical and Neuromuscular Factors. Int J Sports Med. 2020; 41(11):709-719
 14. Casserly N, Grainger A, **Ditroilo M**, Neville R. Longitudinal changes in the physical development of elite adolescent rugby union players: Effect of playing position and body mass change. Int J Sports Physiol Perform. 2020; 15(4):520-527
 15. Montgomery G, Abt G, Dobson C, Evans W, Aye M, **Ditroilo M**. A 12-month continuous and intermittent high-impact exercise intervention and its effects on bone mineral density in early postmenopausal women: a feasibility randomised controlled trial. J Sport Med Phys Fit. 2019; 60(5):770-778
 16. Grainger A, Neville R, **Ditroilo M**, Comfort P. Changes in performance markers and wellbeing in elite senior professional rugby union players during a pre-season period: Analysis of the differences across training phases. J Sci Med Sport. 2020; 23(1):20-26
 17. Evans W, Nevill A, McLaren S, **Ditroilo M**. The effect of intermittent running on biomarkers of bone turnover. Eur J Sport Sci. 2020; 20(4):505-515
 18. Collins R, McGrath D, Horner K, Eusebi S, **Ditroilo M**. Effect of external counterpulsation on exercise recovery in team sport athletes. Int J Sports Med. 2019; 40(8):511-518
 19. Wu R, Delahunt E, **Ditroilo M**, Ferri Marini C, De Vito G. Torque steadiness and neuromuscular responses following fatiguing concentric exercise of the knee extensor and flexor muscles in young and older individuals. Exp Gerontol. 2019; 124:110636

20. Wu R, Delahunt E, **Ditroilo M**, Lowery MM, Segurado R, De Vito G. Changes in knee joint angle affect torque steadiness differently in young and older individuals. *J Electromyogr Kinesiol.* 2019; 47:49-56
21. McMorrow B, **Ditroilo M**, Egan B. Effect of heavy resisted sled sprint training during the competitive season on sprint and change-of-direction performance in professional soccer players. *Int J Sports Physiol Perform.* 2019; 14(8):1066-1073
22. Montgomery G, Abt G, Dobson C, Smith T, Evans W, **Ditroilo M**. The mechanical loading and muscle activation of four common exercises used in osteoporosis prevention for early postmenopausal women. *J Electromyogr Kinesiol.* 2019; 44:124-131
23. Sporri D, **Ditroilo M**, Pickering Rodriguez EC, Johnston RJ, Sheehan WB, Watsford ML. The effect of water-based plyometric training on vertical stiffness and athletic performance. *PLoS One.* 2018; 13(12):e0208439.
24. Severini G, Holland D, Drumgoole A, Delahunt E, **Ditroilo M**. Kinematic and electromyographic analysis of the Askling L-Protocol for hamstring training. *Scand J Med Sci Sports.* 2018; 28(12):2536-2546.
25. Macgregor LJ, Hunter AM, Orizio C, Fairweather MM, **Ditroilo M**. Assessment of Skeletal Muscle Contractile Properties by Radial Displacement: The Case for Tensiomyography. *Sports Med.* 2018; 48(7):1607-1620.
26. Patrizio F, **Ditroilo M**, Felici F, Duranti G, De Vito G, Sabatini S, Sacchetti M, Bazzucchi I. The acute effect of Quercetin on muscle performance following a single resistance training session. *Eur J Appl Physiol.* 2018; 118(5):1021-1031.
27. Scott DJ, **Ditroilo M**, Marshall P. Effect of Accommodating Resistance on the Postactivation Potentiation Response in Rugby League Players. *J Strength Cond Res.* 2018; 32(9):2510-2520.
28. Faria A, Gabriel R, Moreira H, Camacho T, Brás R, **Ditroilo M**. The effect of sex and localised fatigue on triceps surae musculoarticular stiffness. *Eur J Sport Sci.* 2018; 18(4):483-490.
29. **Ditroilo M**, O'Sullivan R, Harnan B, Crossey A, Gillmor B, Dardis W, Grainger A. Water-filled training tubes increase core muscle activation and somatosensory control of balance during squat. *J Sports Sci.* 2018; 36(17):2002-2008.
30. Scott DJ, **Ditroilo M**, Marshall PA. Complex Training: The Effect of Exercise Selection and Training Status on Postactivation Potentiation in Rugby League Players. *J Strength Cond Res.* 2017; 31(10):2694-2703.
31. Zoffoli L, **Ditroilo M**, Federici A, Lucertini F. Patterns of trunk muscle activation during walking and pole walking using statistical non-parametric mapping. *J Electromyogr Kinesiol.* 2017; 37:52-60.
32. Wu R, Delahunt E, **Ditroilo M**, Lowery MM, DE Vito G. Effect of Knee Joint Angle and Contraction Intensity on Hamstrings Coactivation. *Med Sci Sports Exerc.* 2017; 49(8):1668-1676.
33. Zoffoli L, **Ditroilo M**, Federici A, Lucertini F. Local stability and kinematic variability in walking and pole walking at different speeds. *Gait Posture.* 2017; 53:1-4.
34. Wang D, De Vito G, **Ditroilo M**, Delahunt E. Effect of sex and fatigue on muscle stiffness and musculoarticular stiffness of the knee joint in a young active population. *J Sports Sci.* 2017; 35(16):1582-1591
35. Wang D, De Vito G, **Ditroilo M**, Delahunt E. Different Effect of Local and General Fatigue on Knee Joint Stiffness. *Med Sci Sports Exerc.* 2017; 49(1):173-182.
36. Montgomery G, Abt G, Dobson C, Smith T, **Ditroilo M**. Tibial impacts and muscle activation during walking, jogging and running when performed overground, and on motorised and non-motorised treadmills. *Gait Posture.* 2016; 49:120-126.
37. Wu R, Delahunt E, **Ditroilo M**, Lowery M, De Vito G. Effects of age and sex on neuromuscular-mechanical determinants of muscle strength. *Age (Dordr).* 2016; 38(3):57.
38. Zoffoli L, Lucertini F, Federici A, **Ditroilo M**. Trunk muscles activation during pole walking vs. walking performed at different speeds and grades. *Gait Posture.* 2016; 46:57-62.
39. Delahunt E, McGroarty M, De Vito G, **Ditroilo M**. Nordic hamstring exercise training alters knee joint kinematics and hamstring activation patterns in young men. *Eur J Appl Physiol.* 2016; 116(4):663-72.
40. Faria A, Gabriel R, Moreira H, Brás R, **Ditroilo M**. Musculo-articular stiffness is affected by the magnitude of the impulse applied when assessed with the free-oscillation technique. *J Biomech.* 2016; 49(2):155-60.
41. Macgregor LJ, **Ditroilo M**, Smith IJ, Fairweather MM, Hunter AM. Reduced Radial Displacement of the Gastrocnemius Medialis Muscle After Electrically Elicited Fatigue. *J Sport Rehabil.* 2016; 25(3):241-7.

42. Wang D, De Vito G, **Ditroilo M**, Fong DT, Delahunt E. A comparison of muscle stiffness and musculoarticular stiffness of the knee joint in young athletic males and females. *J Electromyogr Kinesiol.* 2015; 25(3):495-500.
43. Forte R, Boreham CA, De Vito G, **Ditroilo M**, Pesce C. Measures of static postural control moderate the association of strength and power with functional dynamic balance. *Aging Clin Exp Res.* 2014; 26(6):645-53.
44. Benelli P, Colasanti F, **Ditroilo M**, Cuesta-Vargas A, Gatta G, Giacomini F, Lucertini F. Physiological and biomechanical responses to walking underwater on a non-motorised treadmill: effects of different exercise intensities and depths in middle-aged healthy women. *J Sports Sci.* 2014; 32(3):268-77
45. **Ditroilo M**, De Vito G, Delahunt E. Kinematic and electromyographic analysis of the Nordic Hamstring Exercise. *J Electromyogr Kinesiol.* 2013; 23(5):1111-8.
46. Mair JL, Boreham CA, **Ditroilo M**, McKeown D, Lowery MM, Caulfield B, De Vito G. Benefits of a worksite or home-based bench stepping intervention for sedentary middle-aged adults - a pilot study. *Clin Physiol Funct Imaging.* 2014; 34(1):10-7.
47. **Ditroilo M**, Watsford M, Murphy A, De Vito G. Sources of variability in musculo-articular stiffness measurement. *PLoS One.* 2013; 8(5):e63719.
48. Doheny EP, McGrath D, **Ditroilo M**, Mair JL, Greene BR, Caulfield B, De Vito G, Lowery MM. Effects of a low-volume, vigorous intensity step exercise program on functional mobility in middle-aged adults. *Ann Biomed Eng.* 2013; 41(8):1748-57.
49. Forte R, Boreham CAG, Costaleite J, **Ditroilo M**, Rodriguez Krause J, Brennan L, Gibney E, De Vito G. Functional and muscular gains in older adults: multicomponent vs. resistance exercise. *Journal of Aging Research & Clinical Practice.* 2013; 2(2):242-248
50. **Ditroilo M**, Smith IJ, Fairweather MM, Hunter AM. Long-term stability of tensiomyography measured under different muscle conditions. *J Electromyogr Kinesiol.* 2013; 23(3):558-63.
51. **Ditroilo M**, Cully L, Boreham CA, De Vito G. Assessment of musculo-articular and muscle stiffness in young and older men. *Muscle Nerve.* 2012; 46(4):559-65.
52. Castagna C, Ganzetti M, **Ditroilo M**, Giovannelli M, Rocchetti A, Manzi V. Concurrent validity of vertical jump performance assessment systems. *J Strength Cond Res.* 2013; 27(3):761-8.
53. Hunter AM, Galloway SD, Smith IJ, Tallent J, **Ditroilo M**, Fairweather MM, Howatson G. Assessment of eccentric exercise-induced muscle damage of the elbow flexors by tensiomyography. *J Electromyogr Kinesiol.* 2012; 22(3):334-41.
54. **Ditroilo M**, Forte R, McKeown D, Boreham C, De Vito G. Intra- and inter-session reliability of vertical jump performance in healthy middle-aged and older men and women. *J Sports Sci.* 2011; 29(15):1675-82.
55. **Ditroilo M**, Watsford M, Murphy A, De Vito G. Assessing musculo-articular stiffness using free oscillations: theory, measurement and analysis. *Sports Med.* 2011; 41(12):1019-32.
56. **Ditroilo M**, Hunter AM, Haslam S, De Vito G. The effectiveness of two novel techniques in establishing the mechanical and contractile responses of biceps femoris. *Physiol Meas.* 2011; 32(8):1315-26.
57. **Ditroilo M**, Watsford M, De Vito G. Validity and inter-day reliability of a free-oscillation test to measure knee extensor and knee flexor musculo-articular stiffness. *J Electromyogr Kinesiol.* 2011; 21(3):492-8.
58. **Ditroilo M**, Watsford M, Fernández-Peña E, D'Amen G, Lucertini F, De Vito G. Effects of fatigue on muscle stiffness and intermittent sprinting during cycling. *Med Sci Sports Exerc.* 2011; 43(5):837-45.
59. Castagna C, Manzi V, Impellizzeri F, Chaouachi A, Ben Abdelkrim N, **Ditroilo M**. Validity of an on-court lactate threshold test in young basketball players. *J Strength Cond Res.* 2010; 24(9):2434-9.
60. Castagna C, Impellizzeri FM, Manzi V, **Ditroilo M**. The assessment of maximal aerobic power with the multistage fitness test in young women soccer players. *J Strength Cond Res.* 2010; 24(6):1488-94.
61. **Ditroilo M**, Forte R, Benelli P, Gambarara D, De Vito G. Effects of age and limb dominance on upper and lower limb muscle function in healthy males and females aged 40-80 years. *J Sports Sci.* 2010; 28(6):667-77.
62. Giacomini F, **Ditroilo M**, Lucertini F, De Vito G, Gatta G, Benelli P. The cardiovascular response to underwater pedaling at different intensities: a comparison of 4 different water stationary bikes. *J Sports Med Phys Fitness.* 2009; 49(4):432-9.
63. Watsford M, **Ditroilo M**, Fernández-Peña E, D'Amen G, Lucertini F. Muscle stiffness and rate of torque development during sprint cycling. *Med Sci Sports Exerc.* 2010; 42(7):1324-32.

64. Fernández-Peña E, Lucertini F, **Ditroilo M**. Training with independent cranks alters muscle coordination pattern in cyclists. *J Strength Cond Res*. 2009; 23(6):1764-72.
65. Gatta G, **Ditroilo M**, Sisti D, Cortesi M, Benelli P, Bonifazi M. The assessment of path linearity in swimming: a pilot study. *Int J Sports Med*. 2008; 29(12):959-64.
66. Fernández-Peña E, Lucertini F, **Ditroilo M**. A maximal isokinetic pedalling exercise for EMG normalization in cycling. *J Electromyogr Kinesiol*. 2009; 19(3):e162-70.
67. Guescini M, Fatone C, Stocchi L, Guidi C, Potenza L, **Ditroilo M**, Ranchelli A, Di Loreto C, Sisti D, De Feo P, Stocchi V. Fine needle aspiration coupled with real-time PCR: a painless methodology to study adaptive functional changes in skeletal muscle. *Nutr Metab Cardiovasc Dis*. 2007; 17(5):383-93.
68. Benelli P, **Ditroilo M**, Forte R, De Vito G, Stocchi V. Assessment of post-competition peak blood lactate in male and female master swimmers aged 40-79 years and its relationship with swimming performance. *Eur J Appl Physiol*. 2007; 99(6):685-93.
69. Gatta G, Benelli P, **Ditroilo M**. The decline of swimming performance with advancing age: a cross-sectional study. *J Strength Cond Res*. 2006; 20(4):932-8.
70. **Ditroilo M**, Fernández Peña E, Benelli P. The measurement of vertical jump performance. *Coaching & Sport Science Journal*. 2005; 1(1): 26-30
71. Rocchi M, Sisti D, **Ditroilo M**, Calavalle A, Panebianco A. The misuse of the confidence ellipse in evaluating statokinesigram. *Italian Journal of Sport Science*. 2005; 12:169-172
72. Benelli P, **Ditroilo M**, De Vito G. Physiological responses to fitness activities: a comparison between land-based and water aerobics exercise. *J Strength Cond Res*. 2004; 18(4):719-22.
73. **Ditroilo M**, Kilding AE. Has the new false start rule affected the reaction time of elite sprinters? *New Studies in Athletics*. 2004; 19(1): 13-19
74. **Ditroilo M**, Marini M. Analysis of the race distribution for male 400 m hurdlers competing at the 2000 Sydney Olympic Games. *New Studies in Athletics*. 2001; 16(3): 15-30
75. Ninfali P, **Ditroilo M**, Capellacci S, Biagiotti E. Rabbit brain glucose-6-phosphate dehydrogenase: biochemical properties and inactivation by free radicals and 4-hydroxy-2-nonenal. *Neuroreport*. 2001; 12(18):4149-53.

ORGANIZZAZIONE, DIREZIONE E COORDINAMENTO DI CENTRI O GRUPPI DI RICERCA NAZIONALI E INTERNAZIONALI O PARTECIPAZIONE AGLI STESSI

(per ciascuna voce inserire anno, ruolo, gruppo di ricerca, ecc.)

2017-2018. Principal investigator for the research project 'Interaction Of Renew External Counter Pulsation Therapy With Neuromuscular Function Fatigue And Biomarkers Of Muscle Damage In A Sports Population', funded by an industrial partner which involved, within University College Dublin, a group of 3 academics with different expertise and two postgraduate students. We have been successful in delivering what was agreed with the industrial partner, including 2 peer-reviewed publications.

2013-2015. Principal investigator for a project examining the effect of intermittent exercise on bone health in post-menopausal women at the University of Hull (UK). The research group included 4 academics, 2 PhD students, 1 clinician and 2 members of a charity body funding the project.

ATTIVITÀ QUALI LA DIREZIONE O LA PARTECIPAZIONE A COMITATI EDITORIALI DI RIVISTE SCIENTIFICHE

(per ciascuna voce inserire anno, ruolo, rivista scientifica, ecc.)

2020-present. *Journal of Sports Sciences*, Associate Editor, Sports Medicine and Biomechanics Section

2016-2020. *Journal of Sports Sciences*, member of the advisory board, Sports Medicine and Biomechanics Section

FONDI DI RICERCA

2023	- Awarded an IRC Employment-Based Postgraduate Programme Scholarship for a project entitled: Using non-invasive wearable technologies to estimate glycemic values in individuals living with Type 1 Diabetes (T1D). Amount awarded: € 84,000
	- Awarded € 58,000 by the University College Dublin - Genofit
2022	- Awarded € 850.94 by the University College Dublin under the Output-Based Research Support Scheme
2021	- A. Grainger, M. Ditroilo. Profiling and developing drag-flicking ability in field hockey. Funding body: Sport Ireland. Amount awarded: € 15,000
2021	- Awarded € 1392.56 by the University College Dublin under the Output-Based Research Support Scheme
2020	- Awarded € 1264.38 by the University College Dublin under the Output-Based Research Support Scheme
2019	- Awarded € 1327.38 by the University College Dublin under the Output-Based Research Support Scheme
2019	- E. Delahunt, B. Caulfield, G. De Vito, U. McCarthy Persson, D. McGrath, M. Ditroilo, O. Lennon, G. Severini, D. Holland, N. Brady, M. Lowery. UCD EQUIP scheme, to upgrade the motion capture system. Amount awarded: € 91,511
2018	- Awarded € 964.25 by the University College Dublin under the Output-Based Research Support Scheme
2017	- Awarded € 920.50 by the University College Dublin under the Output-Based Research Support Scheme
	- M. Ditroilo, D. McGrath, K. Horner. Interaction of Renew external counter pulsation therapy with neuromuscular function, fatigue and biomarkers of muscle damage in a sports population. Funding body: RENEW Health Limited. Amount awarded: € 48,070 + € 35,000 in equipment
2016	- Awarded € 633.50 by the University College Dublin under the Output-Based Research Support Scheme
2014-2015	- Secured £ 7,637.5 from OSPREY (Osteoporosis Research in East Yorkshire) to fund a study looking at the effect of intermittent exercise on bone mineral density in post-menopausal women
2014	- Secured £ 700 from the Physiological Society under the Travel Grant scheme.
2012	- Awarded a PhD studentship (£ 52,000 from Faculty of Science, University of Hull) to fund a PhD student undertaking research on "The effect of continuous and intermittent exercise on the mechanical properties of bones"
2010	- Secured € 3,200 from TRIL (Technology Research for Independent Living, Dublin, Ireland) to buy a Myometer, a device to measure muscle stiffness

PRESENTAZIONI A CONGRESSI E CONVEGNI DI INTERESSE INTERNAZIONALE

(inserire titolo congresso/convegno, data, ecc.)

Since 2015:

- 1) Wu R, De Vito G, Ditroilo M, Doheny E, Le Roux CW, Minnock D, Lowery M. Validation of heart rate measures from the Fitbit Charge 4 and a wearable Nonin Pulse Oximetry against electrocardiogram across different exercise intensities. BASES, Coventry, 16-17 November 2023
- 2) Ditroilo M, Casserly N, Neville R, Grainger A. Longitudinal strength development of elite adolescent rugby union players by playing position. ECSS, 25th Anniversary Congress, 28-30 October 2020
- 3) Stewart R, Flanagan E, Ditroilo M. Reactive strength fatigue in soccer players: reliability and practical applications. UKSCA, Milton Keynes, 15-16 June 2019
- 4) Collins R, McGrath D, Horner K, Eusebi S, Ditroilo M. Effect of external counterpulsation on recovery from high intensity exercise in team sport athletes. BASES, Harrogate, 27-28 November 2018
- 5) Wu R, Delahunt E, Ditroilo M, Lowery M, De Vito G. Effect of Dynamic Muscle Fatigue on Knee Extensors Maximal Strength and Torque Steadiness in Young and Older Individuals. ISEK, Dublin, 30 June - 2 July 2018

- 6) Ditroilo M, Smith T. Effect of force plate coverings on vertical ground reaction forces. ISEK, Dublin, 30 June - 2 July 2018
- 7) Stewart R, Flanagan E, Ditroilo M. The effect of fatigue on reactive strength in soccer players. ECSS, Dublin, 4-7 July 2018
- 8) Monahan M, Ditroilo M, Egan B. The post activation potentiation effect of resisted sled sprinting on subsequent sprint performance. ECSS, Dublin, 4-7 July 2018
- 9) Collins R, McGrath D, Horner K, Eusebi S, Ditroilo M. Effect of two external counterpulsation treatment durations on neuromuscular function and comfort in physically active young men. ECSS, Dublin, 4-7 July 2018
- 10) Wu R, Delahunt E, Ditroilo M, Lowery M, De Vito G. Effect of knee joint angle and antagonist co-activation on torque steadiness in young and older men. ECSS, Dublin, 4-7 July 2018
- 11) Casserly N, Neville R, Ditroilo M, Grainger A. Changes in the physical development of elite adolescent rugby union player in Ireland: A longitudinal analysis of development by playing position. ECSS, Dublin, 4-7 July 2018
- 12) Monahan M, Petrakos G, Ditroilo M, Egan B. Acute physiological responses to resisted sled sprint training at light or heavy sled loads. ECSS, Essen, 5-8 July 2017
- 13) Zoffoli L, Lucertini F, Federici A, Ditroilo M. Walking and pole walking at different speeds: Analysis of movement pattern and complexity. ECSS, Essen, 5-8 July 2017
- 14) Wu R, Delahunt E, Ditroilo M, Segurado R, De Vito G. Effect of contraction intensity and sex on torque fluctuations during sustained isometric knee extension contractions. ECSS, Essen, 5-8 July 2017
- 15) Montgomery G, Abt G, Dobson C, Smith T, Fagan M, Aye M, Ditroilo M. The effect of continuous and intermittent exercise on bone mineral density in postmenopausal women: a twelve-month randomised control trial. Conference of the National Osteoporosis Society, Birmingham, 07-09 November 2016
- 16) Wu R, Delahunt E, Ditroilo M, Lowery M, De Vito G. Effect of knee joint angle and contraction intensity on quadriceps and hamstrings coactivation in healthy young humans. Joint Meeting of the American Physiological Society and The Physiological Society, Dublin, 29 - 31 July 2016
- 17) Zoffoli L, Lucertini F, Federici A, Ditroilo M. Local stability and kinematic variability of walking vs. pole walking at different speeds. ECSS, Vienna, 6-9 July 2016
- 18) Scott D, Ditroilo M, Marshall P. Complex training: The effect of exercise selection on post-activation potentiation in rugby league players. ECSS, Vienna, 6-9 July 2016
- 19) Zoffoli L, Lucertini F, Federici A, Ditroilo M. Walking vs. Nordic walking exercise: differences in trunk muscle activity and impact acceleration. ISB Congress, Glasgow, 12-16 July 2015
- 20) Montgomery G, Evans W, Zoffoli L, Abt G, Dobson C, Fagan M, Smith T, Ditroilo M. The osteogenic index of four common continuous and intermittent exercises used in osteoporosis prevention in an at-risk population. ISB Congress, Glasgow, 12-16 July 2015

PRESENTAZIONI AD INVITO

(presso universita' o a conferenze)

- Invited oral presentation at Eindhoven University of Technology, 27 May 2024. Title: Overview of my research interests
- Invited pre-recorded presentation at University of London Southbank, October 2020. Title: Scientific writing, addressed to final year BSc students
- Invited oral presentation at University of London Southbank, 13 November 2018. Title: Overview of my research interests
- Invited symposium at the ISEK conference, Dublin, Ireland, 30 June - 2 July 2018. Title: Muscle Stiffness and extensibility: how do they affect muscle function? Role: chair and speaker
- Invited symposium at the ECSS conference, Dublin, Ireland, 4-7 July 2018. Title: Do prosthetic legs enhance or hinder running performance? Role: chair
- Invited satellite symposium at the ECSS conference, Dublin, Ireland, 4-7 July 2018. Title: Training load and challenges of the Dose-Response relationship. Role: chair
- Invited oral presentation at the British Cardiovascular Society conference, Manchester, UK, 4-6 June 2018. Title: ECP in Athletic Training and Recovery
- Invited oral presentation at the Institute of Technology Tallaght, Dublin, Ireland, 29 March 2017. Title: Validity and Reliability of Tensiomyography

- Invited oral presentation at the University of Roehampton, London, UK, 25 February 2015. Title: Free-oscillation and tensiomyography: techniques to assess the neuromuscular properties of the skeletal muscle
- Invited to deliver a workshop at the ISEK congress, Rome, Italy, 15-18 July 2014. Title: Muscle contractile properties measured by tensiomyography
- Invited oral presentation at the University of Urbino, Italy, 18 September 2012. Title: Free-oscillation and tensiomyography, new techniques to assess muscle function
- Invited oral presentation at the Symposium 'Healthy ageing: The essential role of physical activity', Dublin (Ireland), 3 November 2011. Title: Effect of ageing on neuro-mechanical properties of human muscles

ATTIVITÀ GESTIONALI, ORGANIZZATIVE E DI SERVIZIO

INCARICHI DI GESTIONE E AD IMPEGNI ASSUNTI IN ORGANI COLLEGIALI E COMMISSIONI, PRESSO RILEVANTI ENTI PUBBLICI E PRIVATI E ORGANIZZAZIONI SCIENTIFICHE E CULTURALI, OVVERO PRESSO L'ATENEO O ALTRI ATENEI

(inserire incarico/impegno, ente, data, ecc.)

2018-2023	Member of the Taught Masters Research Ethics Committee, School of Public Health, Physiotherapy & Sports Science, University College Dublin
2023	Co-Chair of the Taught Masters Research Ethics Committee, School of Public Health, Physiotherapy & Sports Science, University College Dublin
2022-2023	Member of the Equality, Diversity, Inclusion Committee, School of Public Health, Physiotherapy & Sports Science, University College Dublin
2021-2022	Covid-19 Coordinator, School of Public Health, Physiotherapy and Sports Science, University College Dublin
2014-2015	Curriculum 2016, University of Hull. Contributed to review and redesign of curriculum, from the module to the programme level, within the Sport, Health & Exercise Science area.
2012-2015	Health & Safety officer, Department of Sport Health & Exercise Science, University of Hull

Data

27/05/2024

Luogo

Dublin, Ireland