

Enrico Roma

CURRICULUM VITAE

Current Position

Since October 2021; (expected completion: February 2024)

PhD Student in exercise biology and physiology, Univ Lyon, UJM-Saint-Etienne, France.

Thesis title: Foot-ankle complex strength: pedestal for a physically healthy ageing?

Supervisor: Prof. Guillaume MILLET, Prof. Jean-Benoit MORIN

External supervisor: Prof. Luke KELLY.

Research interests

I am a lover of sports science and statistics. Of the former, I particularly like biomechanics, resistance training and the study of individual response to exercise. The project I am most proud of is the development of a predictive model to aid decision making in powerlifting training (developed for "The strength guys" team). The opportunity to improve population health through exercise and data manipulation has led me to study healthy aging. However, I am still interested in more methodological aspects such as meta-analysis and investigating the properties of measurement instruments. As an avid statistician, I never miss an opportunity to collaborate with colleagues (even from other disciplines) to develop an ad hoc statistical model for their studies.

Education

September 2019 – July 2023

Bachelor degree in Statistics for Technologies and Science.

University of Padova, Department of Statistics

Title of dissertation: Meta-analysis and meta-regression: application and discussion in case of small sample size

Supervisor: Prof. Annamaria Guolo

Final mark: 108/110

September 2016 – July 2018

Master degree in Preventive and Adapted Physical Activity.

University of Padova, Department of Medicine

Title of dissertation: Influence of age on erectors spinae and shank muscles activity during different dual task conditions

Supervisor: Prof. Marco Bergamin, Prof. Zimi Sawacha

Final mark: 110/110 summa cum laude

September 2014 – July 2016

Bachelor degree in Human Movement Science.

University of Padova, Department of Biomedical Science

Title of dissertation: Biomechanical differences between front and lateral rugby tackle: an experience in a FIR academy

Supervisor: Prof. Zimi Sawacha

Final mark: 110/110 summa cum laude.

Further education

August 2023 – November 2023
Introduction to Causal Inference
Link: <https://causalcourse.com/>
Instructor: Brady Neal

January 2023 – March 2023
18.03: Differential Equations
MIT OpenCourseWare
Organizer: Massachusetts Institute of Technology, OpenCourseWare (Online)
Instructor: Arthur Mattuck (Professor of Mathematics, Massachusetts Institute of Technology)

May 2022 – May 2022
Network meta-analysis
Université Paris Cité, Centre de Recherche Epidémiologie et Statistique
Organizer: Anna CHAIMANI
Instructor: Anna Chaimani (Inserm – Université Paris Cité FR), Theodoros Evrenoglou (Université Paris Cité, FR), Silvia Metelli (Université Paris Cité, FR), Adriani Nikolakopoulou, University Medical Centre of Freiburg, DE), Ian White (University College London, UK)

December 2021 – January 2022
PH559x: Causal Diagrams: Draw Your Assumptions Before Your Conclusions
HarvardX, edX
Organizer: HarvardX, edX
Instructor: Miguel Hernán Kolokotronis (Professor of Biostatistics and Epidemiology Harvard T.H. Chan School of Public Health)

Work experience

May 2023 – Present
Statistician
THE STRENGTH GUYS INC., Calgary, Canada

September 2018 – October 2021
Research Assistant
U.O.C. Sport Medicine and Exercise department DIMED - University of Padova, Italy

Awards and Scholarship

24 March 2022
Small grant: Junior laboratory
Project title: "Automatic motor control measurement of intrinsic foot muscles - a perspective to reduce the risk of falls"
Grant number: eOTP G754LABJUN / labo LIBM (9000€)

Computer skills

- R
- Python
- C/C++
- SQL

Language skills

- Italian: native
- English: fluent
- French: fluent

Manuscripts under review

Roma, E., Michel, A., Tourillon, R., Blanchet, C., Millet, Y. G., Morin, J.B. (2023). Reliability, measurement error and face validity of foot strength measurement instruments: a systematic review and meta-analysis following COSMIN guidelines *Journal of Biomechanics*, Under Review.

Manuscript in preparation

Roma, E., Michel, A., Tourillon, R., Millet, Y. G., Morin, J.B. (2024). Reliability and measurement error of ankle strength measurement instruments: a systematic review and meta-analysis following COSMIN guidelines. Manuscript in preparation.

Roma, E., Rao, G., Ravel, A., Rossi, J., Millet, Y. G., Morin, J.B. (2024). Reliability and responsiveness to a fatiguing task of a maximal voluntary hallux, 2nd to 5th toe and all toes plantarflexion measurement process. Manuscript in preparation.

Roma, E., Ravel, A., Eduard, P., Millet, Y. G., Morin, J.B. (2024). Efficacy of a toe flexion training protocol on older adults' mobility. Manuscript in preparation.

Blanchet, C., Ferraro, S., Bortolato, E., Sarto, F., Varella, L. J., Millet, Y. G., Morin, J.B., **Roma, E.**(2024). Computerized adaptive test to assess motor control and coordination at the toe level. Manuscript in preparation.

Mira, J., Brownstein, G. C., Djahid, K., Varesco G., **Roma, E.**, Lapole, T., Millet, Y. G.(2024). Reliability of corticospinal and motoneuronal excitability evaluation during unfatiguing and fatiguing cycling exercise.

Publications

Articles in journals

Roma, E., Michel, A., Tourillon, R., Millet, Y. G., Morin, J.B. (2024). Reliability and measurement error of a maximal voluntary toe plantarflexion measurement process. *The Foot*, 102095.

Roma, E., Gobbo, S., Bullo, V., Spolaor, F., Sawacha, Z., Duregon, F., ... & Bergamin, M. (2022). Influence of age on postural control during dual task: a centre of pressure motion and electromyographic analysis. *Aging Clinical and Experimental Research*, **34**(1), 137-149.

Gobbo, S., Bullo, V., Roma, E., Bergamo, M., Vendramin, B., Duregon, F., ... & Bergamin, M. (2021). Effects of Tailored Resistance Exercise Training in a Group of Metalworkers with Ergonomic or Manual Handlings Loads Prescription by the Occupational Physician: a Pilot Study. *Muscles Ligaments & Tendons Journal*, **11**(1)

Bullo, V., Roma, E., Gobbo, S., Duregon, F., Bergamo, M., Bianchini, G., ... & Bergamin, M. (2020). Lower limb strength profile in elderly with different pathologies: Comparisons with healthy subjects. *Geriatrics*, **5**(3), 83.

Gobbo, S., Vendramin, B., Roma, E., Duregon, F., Bocalini, D. S., Rica, R. L., ... & Bergamin, M. (2020). Reliability of an integrated inertial sensor for the continuous measurement of active

cervical range of motion in a group of younger and elderly individuals. *Journal of Functional Morphology and Kinesiology*, **5**(3), 58.

Gobbo, S., Zanotto, T., Bullo, V., Roma, E., Duregon, F., Ermolao, A., & Bergamin, M. (2020). Postural control data from prevalent kidney transplant patients with and without history of falls. *Data in brief*, **31**, 105970.

Zanotto, T., Gobbo, S., Bullo, V., Vendramin, B., Roma, E., Duregon, F., ...& Ermolao, A. (2020). Postural balance, muscle strength, and history of falls in end-stage renal disease patients living with a kidney transplant: A cross-sectional study. *Gait & Posture*, **76**, 358-363.

Gobbo, S., Bullo, V., Bergamo, M., Duregon, F., Vendramin, B., Battista, F., ...& Bergamin, M. (2019). Physical exercise is confirmed to reduce low back pain symptoms in office workers: A systematic review of the evidence to improve best practices in the workplace. *Journal of Functional Morphology and Kinesiology*, **4**(3), 43.

Duregon, F., Gobbo, S., Bullo, V., Roma, E., Vendramin, B., Bergamo, M., ...& Ermolao, A. (2019). Exercise prescription and tailored physical activity intervention in onco-hematology inpatients, a personalized bedside approach to improve clinical best practice. *Hematological oncology*, **37**(3), 277-284.

Gobbo, S., Bullo, V., Roma, E., Duregon, F., Bocalini, D. S., Rica, R. L., ...& Bergamin, M. (2019). Nordic walking promoted weight loss in overweight and obese people: a systematic review for future exercise prescription. *Journal of Functional Morphology and Kinesiology*, **4**(2), 36.

Gobbo, S., Bergamin, M., Bullo, V., Bergamo, M., Bocalini, D. S., Blasio, A. D., ...& Ermolao, A. (2019). Reliability of an isometric and isokinetic strength testing protocol of the knee and ankle in young adults. *Muscles, Ligaments & tendons journal*, **9**, 348-355.

Conference presentations

Roma, E., Michel A., Tourillon R., Millet G., Morin J.B. Reliability and measurement error of a maximal voluntary toe plantarflexion measurement process. (Oral). *28th Annual Congress of the European College of Sport Science*, Paris, France, 4 - 7 July 2023.

Roma, E., Tourillon R., Michel A., Edouard P., Fourchet F., Millet G., Morin J.B. Relationship between metatarsophalangeal joint flexors and lower limb strength: a preliminary investigation. (poster). *XXVIII Congress of the International Society of Biomechanics (ISB)*, Digital Congress, 25-29 July 2021.

Pavan, D., Cibi, F., Guiotto, A., Rizzi, A., Roma, E., Colangelo, A., ...& Sawacha, Z. (2016). ACL injury risk during Rugby tackle can be evaluate through an on-field task-specific analysis: A pilot study. *Gait & Posture*, **1**(49), S18-S19.

Teaching experience

September 2023 – September 2023

Advanced Biomechanics (M2 HPS STAPS)

M.S. Health and performance science 2A

Teaching task (exercise/laboratory), 15 hours

Université Jean-Monnet, Saint-Etienne, France

Instructor: Prof. Jean-Benoit MORIN

October 2019 – January 2020

Research methods in physical activity (M-EDF/01)

M.S. Preventive and Adapted Physical Activity

Teaching task (exercise/laboratory), 30 hours

University of Padova, Italy

Instructor: Prof. Marco BERGAMIN

Invited presentation

May 24, 2023

"Foot strength": some thoughts on the literature (Online)

Human Performance Lab (HPL), Landon Center on Aging, University of Kansas Medical Center,
Kansas City