

PERSONAL INFORMATION



Federico Stella

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📅 Date of birth 25/02/1991

WORK EXPERIENCE

Feb 2017–Present

Sport Scientist

CeRiSM - Centro di Ricerca Sport, Salute, Montagna - UniVR, Rovereto, TN (Italy)

- Research activity on human biomechanics and physiological responses to exercise in endurance activities, both in laboratory controlled conditions or in specific field
- Sport functional evaluation of strength, cardio-respiratory parameters, motor control ability with recreational, junior and high level athletes
- Design and development of mobile chatbot-based solutions for Training Load and wellness questionnaires assessment for National Level Sport Climbers and daily physical activity habits for obese people
- Lead and perform data organization, processing and analysis with custom written algorithm, both in Matlab and Python
- Matlab GUI (Graphical User Interface) deployment for data processing, analysis and reporting for colleagues

May 2012–Jun 2017

Sport climbing Instructor and Coach

Cus Bologna ASD (2012 - 2016), Arco Climbing (2016 - 2017)

- Coaching and training activities with competitive climbers
- Climbing courses for beginners, both adults and children
- Climbing and motor skills development with visually impaired athletes

Jun 2016–Sep 2017

Strength & Conditioning Coach

Hockey Pergine ASD, Pergine Valsugana (TN)

Training plan development during the off-season period

EDUCATION AND TRAINING

Mar 2016

Master's Degree - Sport Science and Physical Performance

Alma Mater Studiorum - Università di Bologna

Final Mark: 110/110

Thesis Title: Trail Running and Fatigue: biomechanical evaluation during downhill trail running with inertial sensors

Nov 2013

Bachelor's Degree in Sport Science

Alma Mater Studiorum - Università di Bologna

Final Mark: 102/110

Thesis title: Sport Climbing: performance analysis and finger strength

Sep 2014 **Sport Climbing Instructor**
Italian Sport Climbing Federation

Feb 2013 **Assistant Instructor**
Italian Sport Climbing Federation

PERSONAL SKILLS

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
Spanish	B1	B1	B1	B1	A2
German	A2	A2	A2	A2	A2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Job-related skills

- Good ability in finding and developing ad-hoc solutions for data collection and analysis in sport related research field
- Highly proficient in Matlab programming
- Good proficiency in Python programming, particularly: Pandas, SciPy, NumPy e SKLearn
- Basic knowledge and application of model fitting with Machine Learning techniques
- Well experienced with the following lab specific equipment:
Accelerometers and IMUs
Load cells and force plates
Stereophotogrammetry (Qualisys)
Stabilography
Electromyography (OTB DuePro)
Indirect calorimetry (Cosmed Quark e K5)
Heart rate variability
Thermographic imaging
Baropodometric insoles (Novel)
NIRS (Nimo Nirox)
Raspberry PI and Arduino
Video-analysis and Image Processing

Other skills

I am involved in the teaching activity during theoretical and practical classes for the Master's Degree Course in Sport Science

Driving licence

B

ADDITIONAL INFORMATION

Publications

- Pellegrini, B., Boccia, G., Zoppirolli, C., Rosa, R., **Stella, F.**, Bortolan, L., Schena, F. (2018). **Muscular and metabolic responses to different nordic walking techniques, when style matters.** PLoS ONE, 13(4). <https://doi.org/10.1371/journal.pone.0195438>

- Fomasiero, A., Savoldelli, A., Skafidas, S., **Stella, F.**, Bortolan, L., Boccia, G., Schena, F., Pellegrini, B. (2018). **Delayed parasympathetic reactivation and sympathetic withdrawal following maximal cardiopulmonary exercise testing (CPET) in hypoxia.** European Journal of Applied Physiology, 118(10). <https://doi.org/10.1007/s00421-018-3945-5>
- Zoppirolli, C., Bortolan, L., **Stella, F.**, Boccia, G., Holmberg, H.-C., Schena, F., & Pellegrini, B. (2018). **Following a long-distance classical race the whole-body kinematics of double poling by elite cross-country skiers are altered.** Frontiers in Physiology, 9(JUL). <https://doi.org/10.3389/fphys.2018.00978>
- Zignoli, A., Fomasiero, A., **Stella, F.**, Pellegrini, B., Schena, F., Biral, F., & Laursen, P. B. (2019). **Expert-level classification of ventilatory thresholds from cardiopulmonary exercising test data with recurrent neural networks.** European Journal of Sport Science, 19(9). <https://doi.org/10.1080/17461391.2019.1587523>
- Fomasiero, A., Skafidas, S., **Stella, F.**, Zignoli, A., Savoldelli, A., Rakobowchuk, M., Pellegrini, B., Schena, F., Mourot, L. (2019). **Cardiac Autonomic and Physiological Responses to Moderate-Intensity Exercise in Hypoxia.** International journal of sports medicine, 40(14), 886-896. doi: 10.1055/a-1015-0647
- Mourot, L., Fomasiero, A., Rakobowchuk, M., Skafidas, S., Brighenti, A., **Stella, F.**, Zignoli, A., Savoldelli, A., Lippi, G., Schena, F. (2020). **Similar cardiovascular and autonomic responses in trained type 1 diabetes mellitus and healthy participants in response to half marathon.** Diabetes Research and Clinical Practice, 160, 107995. <https://doi.org/10.1016/j.diabres.2019.107995>

Submitted works:

- Fomasiero, A., Savoldelli, A., **Stella, F.**, Callovini, A., Bortolan, L., Zignoli, A., Low, D. A., Mourot, L., Schena, F., Pellegrini B.; **"Effects of two different work-rest durations on physiological, perceptual and cardiac autonomic responses to a simulated high-altitude hike"**. Submitted to High Altitude Medicine and Biology.
- Pellegrini B., Zoppirolli, C., Bortolan, L., **Stella, F.**, Schena, F.; **"Biomechanical analysis of the "running" versus "conventional" diagonal stride uphill techniques as performed by elite cross-country skiers"**. Submitted to Journal of Sport and Health Science

Conferences

- C. Zoppirolli, B. Pellegrini, **F. Stella**, S. Skafidas, L. Bortolan, F. Schena; **"Whole body kinematic description while cross country skiing on the snow: experimental setting and tracking methodology for a good analysis"**. (SISMES 2017, Brescia, Italy).
- A. Savoldelli, A. Fomasiero, S. Skafidas, G. Boccia, L. Bortolan, **F. Stella**, A. Pedrinolla, M. Venturelli, R. Modena, L. Mourot, G. Vernillo, F. Schena, B. Pellegrini; **"Do both submaximal exercise and exposure to progressive hypoxia impair endurance performance?"**. (SISMES 2017, Brescia, Italy).
- C. Zoppirolli, B. Pellegrini, **F. Stella**, S. Skafidas, L. Bortolan, F. Schena; **"Kinematics during Marcialonga ski marathon: gender and fatigue"**. (MSH 2017, Rovereto, Italy).
- A. Savoldelli, A. Fomasiero, S. Skafidas, G. Boccia, L. Bortolan, **F. Stella**, A. Pedrinolla, M. Venturelli, C. Zoppirolli, R. Modena, L. Mourot, F. Schena, G. Vernillo, B. Pellegrini; **"Interaction between hypoxia exposure and exercise intensity"**. (MSH 2017, Rovereto).
- A. Fomasiero, A. Savoldelli, S. Skafidas, F. Stella, I. Bortolan, G. Boccia, A. Zignoli, F. Schena, L. Mourot, B. Pellegrini; **"Effects of acute hypoxia on cardiac autonomic modulation following"**

maximal cardiopulmonary exercise testing (CPET)". (ECSS 2018, Dublin, Ireland).

- C. Zoppiroli, B. Pellegrini R. Modena, A. Fornasiero, A. Savoldelli, **F. Stella**, L. Bortolan, F. Schena; "**Sex differences in upper and lower body muscular engagement during cross-country skiing**". (SISMES 2018, Messina, Italy).
- B. Pellegrini, C. Zoppiroli, F. Stella, L. Bortolan, F. Schena; "Running on skis vs gliding, biomechanical analysis of a recent evolution in cross country skiing technique". (SISMES 2018, Messina, Italy).
- A. Fornasiero, L. Mourot, S. Skafidas, A. Brighenti, A. Gentilin, **F. Stella**, A. Zignoli, A. Savoldelli, B. Pellegrini, C. Tarperi, F. Schena; "**Heart rate variability and baroreflex sensitivity decrease after strenuous exercise: similar response in type 1 diabetes and healthy subjects**". (SISMES 2018, Messina, Italy).
- A. Savoldelli, A. Fornasiero, S. Skafidas, G. Boccia, **F. Stella**, C. Zoppiroli, L. Mourot, L. Bortolan, F. Schena, G. Vernillo, B. Pellegrini; "**Moving from 2000 to 3500 m of simulated altitude: physiological responses with different intensities of effort**". (SISMES 2018, Messina, Italy).
- F. Gilli, S. Skafidas, **F. Stella**, A. Callovini, V. Muollo, C. Zoppiroli, M.L. Petroni, L. Busetto, F. Giordano, S. Budui, S. Leoni, B. Pellegrini, F. Schena; "**Monitoring physical activity through digital technologies boosts the adherence to a multidisciplinary weight loss program**". (SISMES 2019, Bologna, Italy).
- A. Brighenti, **F. Stella**, F. Noè, F. Schena, L. Mourot; "**The warm-up effect on postural stability in dominant and nondominant one-legged stance**". (SISMES 2019, Bologna, Italy).
- B. Pellegrini, L. Peyre´-Tartaruga, C. Zoppiroli, **F. Stella**, L. Bortolan, G. Boccia, F. Schena; "**Nordic Walking poles, effective tools to improve gait stability**". (SISMES 2019, Bologna, Italy).
- C. Zoppiroli, F. Gilli, S. Skafidas, **F. Stella**, R. Modena, L. Bortolan, A. Fornasiero, A. Callovini, A. Savoldelli, F. Schena, B. Pellegrini; "**Cross-country skiing master athletes: excellent examples of successful aging**". (SISMES 2019, Bologna, Italy).
- L. Bortolan, A. Savoldelli, **F. Stella**; "**The ankle ROM during the walking phase of Ski mountaineering: the role of different ski boots**". (MSH 2019, Rovereto, Italy).
- A. Brighenti, **F. Stella**, F. Noè, F. Schena, L. Mourot; "**Postural stability response, in dominant and nondominant one-legged stance, after a warm-up**". (MSH 2019, Rovereto, Italy).
- A. Callovini, A. Fornasiero, A. Savoldelli, **F. Stella**, L. Bortolan, B. Pellegrini, F. Schena; "**Very short-term heat acclimation: are 3 exercise sessions in the heat enough to partially reduce heat-induced performance decrements?**". (MSH 2019, Rovereto, Italy).
- A. Fornasiero, S. Skafidas, **F. Stella**, A. Zignoli, A. Savoldelli, L. Bortolan, M. Rakobowchuk, B. Pellegrini, F. Schena, L. Mourot; "**Cardiac autonomic and physiological responses to hypoxic exercise of different intensities**". (MSH 2019, Rovereto, Italy).
- A. Savoldelli, A. Fait, A. Callovini, **F. Stella**, A. Fornasiero, L. Bortolan; "**Uphill performance: with poles, or not with poles, this is the question**". (MSH 2019, Rovereto, Italy).

Privacy law

I hereby authorise the use of my personal data in accordance to the GDPR 679/16 - "European regulation on the protection of personal data" and the Italian Legislative Decree 196 (30/06/2003)