

CURRICULUM VITAE (estratto)

Andrea Nicolò

Posizione attuale

Ricercatore a tempo determinato di tipo b (RTDb) in Metodi e didattiche delle attività sportive (S.S.D. MEDF-01/B) presso l'Università degli Studi di Roma "Foro Italico".

Abilitazione Scientifica Nazionale

Dal 2020 – Abilitazione Scientifica Nazionale alle funzioni di professore di seconda fascia per il Settore Concorsuale 06/N2 - Scienze dell'Esercizio Fisico e dello Sport.

Istruzione e formazione

- 2015 – Dottorato di Ricerca in Scienze dello Sport, dell'Esercizio Fisico e dell'Ergonomia conseguito presso l'Università degli Studi di Roma "Foro Italico". Titolo della Tesi: Respiratory frequency as a marker of effort and fatigue during exercise.
- 2011 – Laurea Magistrale in Scienze e Tecniche dello Sport (L75/S) conseguita presso l'Università degli Studi di Roma "Foro Italico" con voto 110/110 e lode.
- 2009 – Laurea Triennale in Scienze Motorie e Sportive (L33) conseguita presso l'Università degli Studi di Roma "Foro Italico" con voto 110/110 e lode.
- 2006 – Diploma di Maturità scientifica conseguito presso il Liceo Scientifico Statale A. Avogadro (Roma) con voto 100/100.

Principali esperienze professionali

- Da gennaio 2022 – Ricercatore a tempo determinato di tipo b (RTDb) in Metodi e didattiche delle attività sportive (S.S.D. MEDF-01/B, già S.S.D. M-EDF/02) presso l'Università degli Studi di Roma "Foro Italico".
- Dal 2018 al 2021 – Assegnista di ricerca presso l'Università degli Studi di Roma "Foro Italico".
- Dal 2017 al 2018 – Borsa per attività di ricerca presso l'Università degli Studi di Roma "Foro Italico".
- 2015 – Borsa per attività di ricerca presso la School of Sport and Exercise Sciences, University of Kent, UK.

- 2015 – Research Assistant presso la School of Sport and Exercise Sciences, University of Kent, UK.
- Dal 2014 al 2015 – Visiting Training Fellow presso la School of Sport and Exercise Sciences, University of Kent, UK.

Indicatori relativi all’impatto della produzione scientifica

Numero di articoli: **58**

Numero di citazioni: **1666***

Indice H: **20***

*Note: * fonte Scopus (aggiornato al 28/10/2024)*

Pubblicazioni scientifiche

1. Greco, G., Innocenti, L., Massaroni, C., & **Nicolò, A.*** (2024). Validity of a Commercial Wearable Sensor Measuring Respiratory Frequency in Cycling. *Journal of Science and Cycling*, 13(2), 90-92.
*Corresponding author
2. Innocenti, L., Romano, C., Greco, G., Nuccio, S., Bellini, A., Mari, F., Silvestri, S., Schena, E., Sacchetti, M., Massaroni, C., & **Nicolò, A.** (2024). Breathing Monitoring in Soccer: Part I—Validity of Commercial Wearable Sensors. *Sensors*, 24(14), 4571. doi: 10.3390/s24144571
3. Bellini, A., Scotto di Palumbo, A., **Nicolò, A.**, Bazzucchi, I., & Sacchetti, M. (2024). Exercise Prescription for Postprandial Glycemic Management. *Nutrients*, 16(8), 1170. doi: 10.3390/nu16081170
4. **Nicolò, A.***, Gruet, M., & Sacchetti, M. (2023). Breathing in sport and exercise: physiology, pathophysiology and applications. *Frontiers in Physiology*, 14, 1347806.
*Corresponding author
5. Romano, C., Innocenti, L., Schena, E., Sacchetti, M., **Nicolò, A.**, & Massaroni, C. (2023). A signal quality index for improving the estimation of breath-by-breath respiratory rate during sport and exercise. *IEEE Sensors Journal*.
6. Lecce, E., Nuccio, S., Del Vecchio, A., Conti, A., **Nicolò, A.**, Sacchetti, M., ... & Bazzucchi, I. (2023). Sensorimotor integration is affected by acute whole-body vibration: a coherence study. *Frontiers in Physiology*, 14, 1266085.
7. **Nicolò, A.***, Girardi, M., Bazzucchi, I., Sacchetti, M., & Felici, F. (2023). Ventilation and perceived exertion are sensitive to changes in exercise tolerance: arm+ leg cycling vs. leg cycling. *Frontiers in Physiology*, 14, 1226421.
*Corresponding author

8. Romano, C., **Nicolò, A.***, Innocenti, L., Bravi, M., Miccinilli, S., Sterzi, S., ... & Massaroni, C. (2023). Respiratory rate estimation during walking and running using breathing sounds recorded with a microphone. *Biosensors*, 13(6), 637.
*Corresponding author
9. Massaroni, C., Sacchetti, M., Romano, C., Schena, E., Innocenti, L., & Nicolò, A. (2023). The effects of different algorithms on the performance of a strain-based wearable device estimating respiratory rate during cycling exercise. In *2023 IEEE International Workshop on Metrology for Industry 4.0 & IoT (MetroInd4. 0&IoT)* (pp. 142-147). IEEE.
10. Romano, C., **Nicolò, A.***, Innocenti, L., Sacchetti, M., Schena, E., & Massaroni, C. (2023). Design and Testing of a Smart Facemask for Respiratory Monitoring during Cycling Exercise. *Biosensors*, 13(3), 369. doi: 10.3390/bios13030369
*Corresponding author
11. Bellini, A., **Nicolò, A.**, Rocchi, J. E., Bazzucchi, I., & Sacchetti, M. (2023). Walking Attenuates Postprandial Glycemic Response: What Else Can We Do without Leaving Home or the Office? *International Journal of Environmental Research and Public Health*, 20(1), 253. doi: 10.3390/ijerph20010253
12. Lecce, E., Nuccio, S., Del Vecchio, A., Conti, A., **Nicolò, A.**, Sacchetti, M., Felici, F., & Bazzucchi, I. (2023). The acute effects of whole-body vibration on motor unit recruitment and discharge properties. *Frontiers in Physiology*, 14, 239. doi: 10.3389/fphys.2023.1124242
13. **Nicolò, A.***, & Sacchetti, M. (2023). Differential control of respiratory frequency and tidal volume during exercise. *European Journal of Applied Physiology*, 123(2), 215-242. doi: 10.1007/s00421-022-05077-0
*Corresponding author
14. Passfield, L., Murias, J. M., Sacchetti, M., & **Nicolò, A.** (2022). Training Load: Differentiating Training Volume and Training Dose. *International Journal of Sports Physiology and Performance*, 17(10), 1460-1462. doi: 10.1123/ijsp.2022-0247
15. Passfield, L., Murias, J. M., Sacchetti, M., & **Nicolò, A.** (2022). Validity of the training-load concept. *International Journal of Sports Physiology and Performance*, 17(4), 507-514. doi: 10.1123/ijsp.2021-0536
16. Innocenti, L., **Nicolò, A.***, Massaroni, C., Minganti, C., Schena, E., & Sacchetti, M. (2022). How to Investigate the Effect of Music on Breathing during Exercise: Methodology and Tools. *Sensors*, 22(6), 2351. doi: 10.3390/s22062351
*Corresponding author
17. Bellini, A., **Nicolò, A.**, Bazzucchi, I., & Sacchetti, M. (2022). The Effects of Postprandial Walking on the Glucose Response after Meals with Different Characteristics. *Nutrients*, 14(5), 1080. doi: 10.3390/nu14051080
18. Massaroni, C., Romano, C., **Nicolò, A.**, Innocenti, L., Sacchetti, M., & Schena, E. (2022, July). Continuous respiratory rate estimation with a wearable temperature sensor during cycling exercise: a feasibility study. In *2022 IEEE International Workshop on Sport, Technology and Research (STAR)* (pp. 117-121). IEEE. doi: 10.1109/STAR53492.2022.9859731

19. **Nicolò, A.**, Zanuso, S., Zoffoli, L., & Sacchetti, M. (2021). The rationale behind the Technogym Functional Threshold Power test. In 2021 IEEE International Workshop on Metrology for Industry 4.0 & IoT (MetroInd4.0&IoT), pp. 203-207, doi: 10.1109/MetroInd4.0IoT51437.2021.9488531
20. Innocenti, L., **Nicolò, A.**, Massaroni, C., & Sacchetti, M. (2021). Entrainment between music and breathing during cycling exercise: a pilot study. In 2021 IEEE International Workshop on Metrology for Industry 4.0 & IoT (MetroInd4.0&IoT), pp. 208-212, doi: 10.1109/MetroInd4.0IoT51437.2021.9488439
21. Bellini, A., **Nicolò, A.**, Bustos, A.S.O., & Sacchetti, M. (2021). Step count accuracy and precision of the Xiaomi Mi Smart Band 5 in healthy young individuals. In 2021 IEEE International Workshop on Metrology for Industry 4.0 & IoT (MetroInd4.0&IoT), pp. 198-202, doi: 10.1109/MetroInd4.0IoT51437.2021.9488479
22. Kesisoglou, A., **Nicolò, A.**, Howland, L., & Passfield, L. (2021). Continuous Versus Intermittent Running: Acute Performance Decrement and Training Load. *International Journal of Sports Physiology and Performance*, 16(12):1794-1803. doi: 10.1123/ijsp.2020-0844
23. Massaroni, C., Zaltieri, M., Presti, L., **Nicolò, A.**, Tosi, D., & Schena, E. (2021). Fiber Bragg Grating Sensors for Cardiorespiratory Monitoring: A Review. *IEEE Sensors Journal*, 21(13), 14069-14080. doi: 10.1109/JSEN.2020.2988692
24. Bellini, A., **Nicolò, A.**, Bazzucchi, I., & Sacchetti, M. (2021). Effects of Different Exercise Strategies to Improve Postprandial Glycemia in Healthy Individuals. *Medicine and Science in Sports and Exercise*, 53(7):1334-1344. doi: 10.1249/mss.0000000000002607
25. Massaroni, C., **Nicolò, A.**, Sacchetti, M., & Schena, E. (2021). Contactless Methods For Measuring Respiratory Rate: A Review. *IEEE Sensors Journal*. 21(11), 12821-12839. doi: 10.1109/JSEN.2020.3023486
26. Kesisoglou, A., **Nicolò, A.**, & Passfield, L. (2021). Cycling Performance and Training Load: Effects of Intensity and Duration. *International Journal of Sports Physiology and Performance*, 16(4):535-543. doi: 10.1123/ijsp.2020-0072
27. **Nicolò, A.**, & Sacchetti, M. (2021). Respiratory frequency and tidal volume in patients with COVID-19. *Journal of Applied Physiology*, 130, 898–899. doi: 10.1152/jap.01036.2020
28. Girardi, M., **Nicolò, A.***, Bazzucchi, I., Felici, F., & Sacchetti, M. (2021). The effect of pedalling cadence on respiratory frequency: passive vs. active exercise of different intensities. *European Journal of Applied Physiology*. 121, 583–596. doi: 10.1007/s00421-020-04533-z
*Corresponding author
29. Bellini, A., **Nicolò, A.**, Bulzomì, R., Bazzucchi, I., & Sacchetti, M. (2021). The Effect of Different Postprandial Exercise Types on Glucose Response to Breakfast in Individuals with Type 2 Diabetes. *Nutrients*, 13(5), 1440. doi: 10.3390/nu13051440
30. Sacchetti, M., Haxhi, J., Sgrò, P., di Palumbo, A. S., **Nicolò, A.**, Bellini, A., Bazzucchi, I., & di Luigi, L. (2021). Effects of exercise before and/or after a mixed lunch on postprandial metabolic responses in healthy male individuals. *European Journal of Nutrition*. 60(6):3437-3447. doi:

31. **Nicolò, A.***, Massaroni, C., Schena, E., & Sacchetti, M. (2020). The Importance of Respiratory Rate Monitoring: From Healthcare to Sport and Exercise. *Sensors*, 20(21), 6396. doi: 10.3390/s20216396
*Corresponding author
32. Massaroni, C., **Nicolò, A.**, Lo Presti, D., Sacchetti, M., & Schena, E. (2020). Respiratory monitoring during cycling exercise: performance assessment of a smart t-shirt embedding fiber optic sensors. In 2020 IEEE International Workshop on Metrology for Industry 4.0 & IoT (pp. 49-53). IEEE. doi: 10.1109/MetroInd4.0IoT48571.2020.9138307
33. Massaroni, C.[†], **Nicolò, A.[†]**, Schena, E., & Sacchetti, M. (2020). Remote Respiratory Monitoring in the Time of COVID-19. *Frontiers in Physiology*, 11, 635. doi: 10.3389/fphys.2020.00635
[†]Equal contribution
34. **Nicolò, A.***, Marcora, S. M., & Sacchetti, M. (2020). Time to reconsider how ventilation is regulated above the respiratory compensation point during incremental exercise. *Journal of Applied Physiology*, 128(5), 1447-1449. doi: 10.1152/jappphysiol.00814.2019
*Corresponding author
35. **Nicolò, A.***, Marcora, S. M., & Sacchetti, M. (2020). Last Word on Viewpoint: Time to reconsider how ventilation is regulated above the respiratory compensation point during incremental exercise. *Journal of Applied Physiology*, 128(5), 1456-1456. doi: 10.1152/jappphysiol.00285.2020
*Corresponding author
36. **Nicolò, A.***, Montini, M., Girardi, M., Felici, F., Bazzucchi, I., & Sacchetti, M. (2020). Respiratory Frequency as a Marker of Physical Effort During High-Intensity Interval Training in Soccer Players. *International Journal of Sports Physiology and Performance*, 15(1), 73-80. doi: 10.1123/ijsp.2019-0028
*Corresponding author
37. **Nicolò, A.**, Sacchetti, M., Girardi, M., McCormick, A., Angius, L., Bazzucchi, I., & Marcora, S. M. (2019). A comparison of different methods to analyse data collected during time-to-exhaustion tests. *Sport Sci Health*, 15:667-679. doi: 10.1007/s11332-019-00585-7.
38. Massaroni, C., **Nicolò, A.**, Girardi, M., La Camera, A., Schena, E., Sacchetti, M., Silvestri, S., & Taffoni, F. (2019). Validation of a wearable device and an algorithm for respiratory monitoring during exercise. *IEEE Sensors Journal*, 19(12), 4652-4659. doi: 10.1109/JSEN.2019.2899658
39. Massaroni, C., **Nicolò, A.**, Lo Presti, D., Sacchetti, M., Silvestri, S., & Schena, E. (2019). Contact-based methods for measuring respiratory rate. *Sensors*, 19(4), 908. doi: 10.3390/s19040908
40. **Nicolò, A.**, & Sacchetti, M. (2019). A new model of ventilatory control during exercise. *Experimental Physiology*, 104:1331-1332. doi: 10.1113/EP087937
41. **Nicolò, A.***, Girardi, M., Bazzucchi, I., Felici, F., & Sacchetti, M. (2018). Respiratory frequency and tidal volume during exercise: differential control and unbalanced interdependence. *Physiological Reports*, 6(21), e13908. doi: 10.14814/phy2.13908
*Corresponding author

42. Baldassarre, R., Sacchetti, M., Patrizio, F., **Nicolò, A.**, Scotto di Palumbo, A., Bonifazi, M., & Piacentini, M. (2018). Carbohydrate Supplementation Does Not Improve 10 km Swimming Intermittent Training. *Sports*, 6(4), 147. doi:10.3390/sports6040147
43. **Nicolò, A.**, Sacchetti, M. (2018). The role of central command in resistance-training-induced improvement in exercise tolerance during high-intensity exercise. *Journal of Applied Physiology*, 124(2), 532-533. doi: 10.1152/jappphysiol.01064.2017
44. Taffoni, F., Rivera, D., La Camera, A., **Nicolò, A.**, Velasco, J. R., & Massaroni, C. (2018). A Wearable System for Real-Time Continuous Monitoring of Physical Activity. *Journal of Healthcare Engineering*, 2018:1878354. doi: 10.1155/2018/1878354
45. **Nicolò, A.**, Massaroni, C., & Passfield, L. (2017). Respiratory Frequency during Exercise: the Neglected Physiological Measure. *Frontiers in Physiology*, 8, 922. doi: 10.3389/fphys.2017.00922
46. **Nicolò, A.***, Girardi, M., & Sacchetti, M. (2017). Control of the depth and rate of breathing: metabolic vs. non-metabolic inputs. *The Journal of Physiology*, 595(19):6363-6364. doi: 10.1113/JP275013
*Corresponding author
47. Bazzucchi, I., Patrizio, F., Felici, F., **Nicolò, A.**, & Sacchetti, M. (2017). Carbohydrate Mouth Rinsing: Improved Neuromuscular Performance During Isokinetic Fatiguing Exercise. *International Journal of Sports Physiology and Performance*, 12(8):1031-1038. doi: 10.1123/ijsp.2016-0583
48. **Nicolò, A.**, Marcora, S. M., Bazzucchi, I., & Sacchetti, M. (2017). Differential control of respiratory frequency and tidal volume during high-intensity interval training. *Experimental Physiology*, 102(8):934-949. doi: 10.1113/EP086352
49. **Nicolò, A.**, Bazzucchi, I., & Sacchetti, M. (2017). Parameters of the 3-Minute All-Out Test: Overestimation of Competitive-Cyclist Time-Trial Performance in the Severe-Intensity Domain. *International Journal of Sports Physiology and Performance*, 12(5), 655-661. doi: 10.1123/ijsp.2016-0111
50. Montini, M., Felici, F., **Nicolò, A.**, Sacchetti, M., & Bazzucchi, I. (2017). Neuromuscular demand in a soccer match assessed by a continuous electromyographic recording. *The Journal of Sports Medicine and Physical Fitness*, 57(4), 345-352. doi: 10.23736/S0022-4707.16.06130-2
51. **Nicolò, A.***, & Girardi, M. (2016). The physiology of interval training: a new target to HIIT. *The Journal of Physiology*, 594(24), 7169-7170. doi: 10.1113/JP273466
*Corresponding author
52. **Nicolò, A.**, Marcora, S. M., & Sacchetti, M. (2016). Respiratory frequency is strongly associated with perceived exertion during time trials of different duration. *Journal of Sports Sciences*, 34(13), 1199-1206. doi: 10.1080/02640414.2015.1102315
53. **Nicolò, A.***, Passfield, L., & Sacchetti, M. (2016). Investigating the effect of exercise duration on functional and biochemical perturbations in the human heart: total work or 'isoeffort' matching?. *The Journal of Physiology*, 594(11), 3157-3158. doi: 10.1113/JP272421
*Corresponding author

54. **Nicolò, A.**, Bazzucchi, I., Felici, F., Patrizio, F., & Sacchetti, M. (2015). Mechanical and electromyographic responses during the 3-min all-out test in competitive cyclists. *Journal of Electromyography and Kinesiology*, 25(6), 907-913. doi: 10.1016/j.jelekin.2015.08.006
55. **Nicolò, A.**, Sacchetti, M., & Marcora, S. M. (2015). Are respiratory frequency and tidal volume regulated by different inputs during exercise?. *Journal of Applied Physiology*, 118(12), 1559-1559. doi: 10.1152/japplphysiol.00229.2015
56. **Nicolò, A.**, Bazzucchi, I., Haxhi, J., Felici, F., & Sacchetti, M. (2014). Comparing continuous and intermittent exercise: an “isoeffort” and “isotime” approach. *PloS one*, 9(4), e94990. doi: 10.1371/journal.pone.0094990
57. **Nicolò, A.**, Bazzucchi, I., Lenti, M., Haxhi, J., Scotto di Palumbo, A., & Sacchetti, M. (2014). Neuromuscular and metabolic responses to high-intensity intermittent cycling protocols with different work-to-rest ratios. *International Journal of Sports Physiology and Performance*, 9(1), 151-160. doi: 10.1123/ijsp.2012-0289
58. Bazzucchi, I., Sbriccoli, P., **Nicolò, A.**, Passerini, A., Quinzi, F., Felici, F., & Sacchetti, M. (2013). Cardio-respiratory and electromyographic responses to ergometer and on-water rowing in elite rowers. *European Journal of Applied Physiology*, 113(5), 1271-1277. doi: 10.1007/s00421-012-2550-2

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