

Dr. Sigrid B. Olthof

Chair, International Steering Committee on Science and Football

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[Professional Website](#)

Professional Summary

Dr. Sigrid Olthof is an experienced researcher and educator specializing in sports science, with a focus on performance profiling and monitoring in football, integration of wearable technology in sports science, recovery strategies and their impact on athlete performance, and biomechanical and physiological analysis in team sports. Committed to fostering global collaboration and innovation in sports science research.

Education

- 2019, University of Groningen, Netherlands, PhD Small-sided games in elite soccer: performance and behavior compared to the official match
- 2012, University of Groningen, Netherlands, MSc Human Movement Science - Sport, learning, and performance
- 2010, University of Groningen, Netherlands, BSc Human Movement Science

Academic Positions

- **Lecturer/Senior Lecturer** in Performance Analysis and Analytics, School of Sport and Exercise Sciences, Liverpool John Moores University, 2020 – present
- **Postdoctoral Research Fellow** Sport Data & Analysis, Exercise and Sport Science Initiative, University of Michigan–Ann Arbor, 2019 – 2020
- **PhD candidate** Small-sided games, Center for Human Movement Sciences, University of Groningen, 2013 - 2019

Certifications

- 2019, University of Groningen, Netherlands, University Teaching Qualification in Higher Education

Professional Leadership

- Chair, **International Steering Committee on Science and Football**
 - Oversees global initiatives to advance the application of science across all football codes.
 - Coordinates the biennial **World Congress on Science and Football**, fostering interdisciplinary collaboration.

Select Conference Presentations

- Team tactical behaviour in small-sided games, World Congress on Science and Football 2023, Groningen, the Netherlands, Invited session. 2023
- Team tactical behaviour varies across phases of professional football match, World Congress on Science and Football 2023, Groningen, the Netherlands, Oral presentation. 2023

- The effect of training objectives on the game format and physical demands in small-sided games, World Congress on Science and Football, Groningen, the Netherlands, Oral presentation. 2023
- Small, medium and large-sided games: the effect of pitch dimensions and team size on acceleration demands in training, World Congress on Science and Soccer, Coimbra, Portugal, Oral presentation. 2022
- Physical Workload Intensities of NCAA D-I American Football Players on Offense vs. Defense During Practical Drills, European College of Sport Science (ECSS) congress, Virtual, Oral presentation. 2021

Select Research Publications

- Morgans R, Kweon D, Ryan B, Ju W, Zmijewski P, Oliveira R, **Olthof S**. 2023. Playing position and match location affect the number of highintensity efforts more than the quality of the opposition in elite football players *Biology of Sport*, 41 :29-37 [DOI](#) [Author Url](#) [Publisher Url](#) [Public Url](#)
- **Olthof SBH**, Tureen T, Tran L, Brennan B, Winograd B, Zernicke RF. 2021. Biomechanical Loads and Their Effects on Player Performance in NCAA D-I Male Basketball Games *Frontiers in Sports and Active Living*, 3 [DOI](#) [Author Url](#) [Publisher Url](#) [Public Url](#)
- Mamon MA, **Olthof SBH**, Burns GT, Lepley AS, Kozloff KM, Zernicke RF. 2021. Position-Specific Physical Workload Intensities in American Collegiate Football Training *Journal of Strength and Conditioning Research*, 36 :420-426 [DOI](#) [Author Url](#) [Publisher Url](#) [Public Url](#)
- Riboli A, **Olthof S**, Esposito F, Coratella G. 2021. Training elite youth soccer players: area per player in small-sided games to replicate the match demands *Biology of Sport*, 39 :579-598 [DOI](#) [Author Url](#) [Publisher Url](#) [Public Url](#)
- **Olthof SBH**, Frencken WGP, Lemmink KAPM. 2019. A match-derived relative pitch area facilitates the tactical representativeness of small-sided games for the official soccer match *Journal of Strength and Conditioning Research*, 33 :523-530 [DOI](#) [Author Url](#) [Publisher Url](#) [Public Url](#)
- **Olthof SBH**, Frencken WGP, Lemmink KAPM. 2019. When Something Is at Stake: Differences in Soccer Performance in 11 vs. 11 during Official Matches and Training Games *Journal of Strength and Conditioning Research*, 33 :167-173 [DOI](#) [Author Url](#) [Publisher Url](#) [Public Url](#)
- **Olthof SBH**, Frencken WGP, Lemmink KAPM. 2018. Match-derived relative pitch area changes the physical and team tactical performance of elite soccer players in small-sided soccer games *Journal of Sports Sciences*, 36 :1557-1563 [DOI](#) [Author Url](#) [Publisher Url](#) [Public Url](#)
- **Olthof SBH**, Frencken WGP, Lemmink KAPM. 2015. The older, the wider: On-field tactical behavior of elite-standard youth soccer players in small-sided games *HUMAN MOVEMENT SCIENCE*, 41 :92-102 [DOI](#) [Author Url](#) [Publisher Url](#)

Research Grants

- Mersey School of Endoscopy, Investigating Psychological Safety in Colonoscopy training, Laura Swettenham, Joe Causer, **Sigrid Olthof**, Paul O'Toole, Mel Rankin, Grant value (£): 20,000, Duration of research project: 12 months. 2024

Awards and Honors

- Young Investigator Award, World Conference on Science and Soccer, <https://wcss-rennes2017.sciencesconf.org/resource/page/id/26>. 2017