



Thesis Proposals at the Chair of Sports Analytics @Saarland University

Chair of Sports Analytics, Saarland University

April 28, 2026

1 Inter-Rater Reliability in Volleyball Match-Tagging

Detailed ball-by-ball scouting data in volleyball forms the foundation for modern performance analysis, enabling the computation of efficiency metrics, the modeling of rally dynamics, (in-)game win predictions, and the extraction of tactical patterns. The recently proposed open-source toolbox for volleyball analytics [1] introduces a flexible tagging structure that captures each action within a rally (e.g. serve, reception, set, attack, block, defense), along with contextual and evaluative labels. Therefore, the aim of this task is to assess the inter-rater reliability of the proposed tagging structure using real volleyball match footage. This thesis aims at annotating the matches with the proposed annotation system and assess its inter-rater reliability.

Supervisor: Abdelrahman Abdelsamad and/or Luis Holzhauer

Scope: Collaborative Bachelor Thesis (2 Students)

Domain: Sports Science

ID: Tagging_Volleyball_Reliability

References

- [1] Andrea Accornero et al. “A toolbox for volleyball data analytics: a case study on the italian women’s league”. en. In: *Journal of Big Data* 12.1 (Oct. 2025), p. 239. ISSN: 2196-1115. DOI: 10.1186/s40537-025-01284-6. URL: <https://doi.org/10.1186/s40537-025-01284-6> (visited on 03/30/2026) (cit. on p. 1).