Thesis Proposals at the Chair of Sports Analytics @Saarland University

Chair of Sports Analytics, Saarland University

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1 A Review of Tennis Analytics Research Based on Jeff Sackmann's Data Resources (ID: Sackmann_Review)

Jeff Sackmann provides repositories on GitHub containing extensive player-, match-, and point-level data for professional tennis across different competitions (e.g., men's, women's, doubles) and tournament categories (e.g., Grand Slams, ATP/WTA 1000, 500, 250, Challenger events). By offering these datasets as open-source resources and explicitly encouraging their use for research and non-commercial purposes, this initiative has contributed to the development of a substantial and growing body of literature in tennis analytics [e.g. 2, 1, 3].

The aim of this thesis is to systematically identify and review studies that rely on these data sources and to synthesize how they have been utilized within the existing literature, compare pre-processing methods, and data set validation components. In doing so, the work seeks to provide a structured overview of the scope and application of these datasets, while also highlighting potential gaps and underexplored areas. Ultimately, this thesis aims to assess how extensively the data has been used and for which research purposes, thus contributing to a clearer understanding of its role.
Supervisor: Luis Holzhauer
Scope: Bachelor or Master Thesis

References

[1] Pascal Bauer and Jan Bauer. "Revisiting clutch performance among elite players in tennis". In: *MathSport International 2025 - Conference Proceedings*. 2025, pp. 18–25. URL: https://www.mathsportinternational.com/MathSport2025Proceedings.pdf (cit. on p. 1).

[2] Min Kyu Sim and Dong Gu Choi. "The winning probability of a game and the importance of points in tennis matches". In: *Research Quarterly for Exercise and Sport* 91.3 (2020), pp. 361–372. ISSN: 0270-1367. DOI: 10.1080/02701367.2019.1666203. (Visited on 01/28/2025) (cit. on p. 1).

[3] Chengzhi Wang and Steve Drekic. "Boosting markovian tennis prediction: Ensembling and point-specific methods for match outcome and duration". EN. In: *Journal of Sports Analytics* 12 (Feb. 2026), pp. 1–16. ISSN: 2215-020X. DOI: 10.1177/22150218251412670. (Visited on 03/04/2026) (cit. on p. 1).