Spatio-Temporal Analysis of Team Sports

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Citation Report

#	Article	IF	CITATIONS
1	Compact Flow Diagrams for State Sequences. Journal of Experimental Algorithmics, 2017, 22, 1-23.	0.7	5
2	Network Characteristics of Successful Performance in Association Football. A Study on the UEFA Champions League. Frontiers in Psychology, 0, 8, .	1.1	34
3	QUANTIFYING THE RELATION BETWEEN PERFORMANCE AND SUCCESS IN SOCCER. International Journal of Modeling, Simulation, and Scientific Computing, 2018, 21, 1750014.	0.9	33
4	Improvement of Visualization Method for Attack Patterns in Team Sports. , 2018, , .		4
5	Analysing Player Performance with Animated Maps. , 2018, , .		7
6	State of the Art of Sports Data Visualization. Computer Graphics Forum, 2018, 37, 663-686.	1.8	83
7	Simulating a Basketball Game with HDP-Based Models and Forecasting the Outcome. , 2018, , .		5
8	Data-Driven Visual Performance Analysis in Soccer: An Exploratory Prototype. Frontiers in Psychology, 2018, 9, 2416.	1.1	10
9	Examination of Markov-chain approximation in football games based on time evolution of ball-passing networks. Physical Review E, $2018, 98, .$	0.8	10
10	Using Network Science to Analyse Football Passing Networks: Dynamics, Space, Time, and the Multilayer Nature of the Game. Frontiers in Psychology, 2018, 9, 1900.	1.1	48
11	Effective injury forecasting in soccer with GPS training data and machine learning. PLoS ONE, 2018, 13, e0201264.	1.1	151
12	COMPUTATIONAL MODELING OF PASS EFFECTIVENESS IN SOCCER. International Journal of Modeling, Simulation, and Scientific Computing, 2018, 21, 1850010.	0.9	7
13	Soccer Analytics: Unravelling the Complexity of "The Beautiful Game― Significance, 2018, 15, 26-29.	0.3	23
14	Probabilistic movement models and zones of control. Machine Learning, 2019, 108, 127-147.	3.4	24
15	Effective and Efficient Sports Play Retrieval with Deep Representation Learning. , 2019, , .		19
16	Extracting spatial-temporal features that describe a team match demands when considering the effects of the quality of opposition in elite football. PLoS ONE, 2019, 14, e0221368.	1.1	36
17	Prevalence of interactions and influence of performance constraints on kick outcomes across Australian Football tiers: Implications for representative practice designs. Human Movement Science, 2019, 66, 621-630.	0.6	21
18	VisuaLeague: Player performance analysis using spatial-temporal data. Multimedia Tools and Applications, 2019, 78, 33069-33090.	2.6	17

#	Article	IF	Citations
20	A public data set of spatio-temporal match events in soccer competitions. Scientific Data, 2019, 6, 236.	2.4	80
21	Machine Learning for Position Detection in Football. , 2019, , .		3
22	Comparison of Visualization Tools for Matches Analysis of a MOBA Game., 2019,,.		8
23	Player Performance Analysis in Sports: with Fusion of Machine Learning and Wearable Technology. , 2019, , .		3
24	Bayesian statistics meets sports: a comprehensive review. Journal of Quantitative Analysis in Sports, 2019, 15, 289-312.	0.5	20
25	Clustering algorithm for formations in football games. Scientific Reports, 2019, 9, 13172.	1.6	24
26	PlayeRank. ACM Transactions on Intelligent Systems and Technology, 2019, 10, 1-27.	2.9	72
27	A hybrid ensemble learning framework for basketball outcomes prediction. Physica A: Statistical Mechanics and Its Applications, 2019, 528, 121461.	1.2	29
28	Network-based centrality measures and physical demands in football regarding player position: Is there a connection? A preliminary study. Journal of Sports Sciences, 2019, 37, 2631-2638.	1.0	25
29	Finding Roles of Players in Football Using Automatic Particle Swarm Optimization-Clustering Algorithm. Big Data, 2019, 7, 35-56.	2.1	8
30	Measuring soccer players' contributions to chance creation by valuing their passes. Journal of Quantitative Analysis in Sports, 2019, 15, 97-116.	0.5	21
31	Spatial Performance Indicators and Graphs in Basketball. Social Indicators Research, 2021, 156, 725-738.	1.4	6
32	Improving Prediction of Pass Receivable Players in Basketball. , 2019, , .		10
33	Quantification of Pass Plays Based on Geometric Features of Formations in Team Sports. , 2019, , .		8
34	A rule induction framework for the determination of representative learning design in skilled performance. Journal of Sports Sciences, 2019, 37, 1280-1285.	1.0	18
35	Interactive exploratory soccer data analytics. Infor, 2019, 57, 141-164.	0.5	2
36	Not Every Pass Can Be an Assist: A Data-Driven Model to Measure Pass Effectiveness in Professional Soccer Matches. Big Data, 2019, 7, 57-70.	2.1	46
37	Visualization of technical and tactical characteristics in fencing. Journal of Visualization, 2019, 22, 109-124.	1.1	3

#	Article	IF	Citations
38	Automatic attribute construction for basketball modelling. Knowledge and Information Systems, 2020, 62, 541-570.	2.1	1
40	Using cooperative networks to analyse behaviour in professional Australian Football. Journal of Science and Medicine in Sport, 2020, 23, 291-296.	0.6	17
41	Quality Risk Analysis for Sustainable Smart Water Supply Using Data Perception. IEEE Transactions on Sustainable Computing, 2020, 5, 377-388.	2.2	21
42	Data-driven team ranking and match performance analysis in Chinese Football Super League. Chaos, Solitons and Fractals, 2020, 141, 110330.	2.5	14
43	FSD-10: A fine-grained classification dataset for figure skating. Neurocomputing, 2020, 413, 360-367.	3 . 5	9
44	Modeling ball possession dynamics in the game of football. Physical Review E, 2020, 102, 042120.	0.8	14
45	Morphology of possible regions in elite soccer players. Sports Biomechanics, 2023, 22, 1334-1347.	0.8	2
46	Deep soccer analytics: learning an action-value function for evaluating soccer players. Data Mining and Knowledge Discovery, 2020, 34, 1531-1559.	2.4	36
47	Criterion Validity of Catapult ClearSky T6 Local Positioning System for Measuring Inter-Unit Distance. Sensors, 2020, 20, 3693.	2.1	18
48	Asymmetries in Football: The Pass—Goal Paradox. Symmetry, 2020, 12, 1052.	1.1	2
49	Recognizing Events in Spatiotemporal Soccer Data. Applied Sciences (Switzerland), 2020, 10, 8046.	1.3	11
50	Consistency and identifiability of football teams: a network science perspective. Scientific Reports, 2020, 10, 19735.	1.6	9
51	An Improved Evaluation Method for Soccer Player Performance Using Affective Computing., 2020,,.		3
52	Characteristics and optimization of core local network: Big data analysis of football matches. Chaos, Solitons and Fractals, 2020, 138, 110136.	2.5	12
53	Winning by hiding behind others: An analysis of speed skating data. PLoS ONE, 2020, 15, e0237470.	1.1	4
54	Integrating machine learning and decision support in tactical decision-making in rugby union. Journal of the Operational Research Society, 2021, 72, 2274-2285.	2.1	15
55	What Is the Relevance in the Passing Action between the Passer and the Receiver in Soccer? Study of Elite Soccer in La Liga. International Journal of Environmental Research and Public Health, 2020, 17, 9396.	1.2	5
56	Eigenvalues make the difference – A network analysis of the Chinese Super League. International Journal of Sports Science and Coaching, 2020, 15, 184-194.	0.7	7

#	Article	IF	Citations
57	Spatial and Temporal Entropies in the Spanish Football League: A Network Science Perspective. Entropy, 2020, 22, 172.	1.1	19
58	Unlocking the potential of big data to support tactical performance analysis in professional soccer: A systematic review. European Journal of Sport Science, 2021, 21, 481-496.	1.4	64
59	A survey of competitive sports data visualization and visual analysis. Journal of Visualization, 2021, 24, 47-67.	1.1	41
60	A method to identify defensive assignments in team-based invasion sports using spatiotemporal trajectories. International Journal of Geographical Information Science, 2021, 35, 741-762.	2.2	1
61	Constructing Spaces and Times for Tactical Analysis in Football. IEEE Transactions on Visualization and Computer Graphics, 2021, 27, 2280-2297.	2.9	38
62	Sports Big Data: Management, Analysis, Applications, and Challenges. Complexity, 2021, 2021, 1-11.	0.9	15
63	Covering a Set of Line Segments with a Few Squares. Lecture Notes in Computer Science, 2021, , 286-299.	1.0	1
64	SoccerMap: A Deep Learning Architecture for Visually-Interpretable Analysis in Soccer. Lecture Notes in Computer Science, 2021, , 491-506.	1.0	17
65	Review on Winning and Progress Modelling On Real Time Soccer Data. International Journal of Innovations in Engineering and Science, 2021, 5, 12-15.	0.1	0
67	The Braess Paradox. , 2021, , 601-607.		1
68	Behavioral Spatial Segmentation and Its Application to Sports Dynamics. Perceptual and Motor Skills, 2021, 128, 1150-1168.	0.6	0
69	Space evaluation in football games via field weighting based on tracking data. Scientific Reports, 2021, 11, 5509.	1.6	7
70	Identification of skill in an online game: The case of Fantasy Premier League. PLoS ONE, 2021, 16, e0246698.	1.1	3
71	Preferential model for the evolution of pass networks in ball sports. Physical Review E, 2021, 103, 032302.	0.8	4
72	Modelling team performance in soccer using tactical features derived from position tracking data. IMA Journal of Management Mathematics, 2021, 32, 519-533.	1.1	15
73	Methodological Considerations for Furthering the Understanding of Constraints in Applied Sports. Sports Medicine - Open, 2021, 7, 22.	1.3	12
74	Understanding gender differences in professional European football through machine learning interpretability and match actions data. Scientific Reports, 2021, 11, 10805.	1.6	16
75	The development of metrics for measuring the level of symmetry in team formation and ball movement flow, and their association with performance. Science and Medicine in Football, 2022, 6, 189-202.	1.0	2

#	Article	IF	CITATIONS
76	TourVis: Narrative Visualization of Multiâ€Stage Bicycle Races. Computer Graphics Forum, 2021, 40, 531-542.	1.8	0
77	Robustness of football passing networks against continuous node and link removals. Chaos, Solitons and Fractals, 2021, 147, 110973.	2.5	9
78	Data-Driven Analysis for Understanding Team Sports Behaviors. Journal of Robotics and Mechatronics, 2021, 33, 505-514.	0.5	17
79	Space and Control in Soccer. Frontiers in Sports and Active Living, 2021, 3, 676179.	0.9	4
80	Who will receive the ball? Predicting pass recipient in soccer videos. Journal of Visual Communication and Image Representation, 2021, 78, 103190.	1.7	4
81	The VC Dimension of Metric Balls under Fréchet and Hausdorff Distances. Discrete and Computational Geometry, 2021, 66, 1351-1381.	0.4	3
82	Explaining the difference between men's and women's football. PLoS ONE, 2021, 16, e0255407.	1.1	8
83	Stochastic model for football's collective dynamics. Physical Review E, 2021, 104, 024110.	0.8	6
84	Distance Between Players During a Soccer Match: The Influence of Player Position. Frontiers in Psychology, 2021, 12, 723414.	1.1	0
85	Automatic Pass Annotation from Soccer Video Streams Based on Object Detection and LSTM. Lecture Notes in Computer Science, 2021, , 475-490.	1.0	4
86	Multi-Modal Trajectory Prediction of NBA Players. , 2021, , .		3
87	Basketball Analytics Using Spatial Tracking Data. Springer Proceedings in Mathematics and Statistics, 2019, , 305-318.	0.1	2
88	FRESH: Fréchet Similarity with Hashing. Lecture Notes in Computer Science, 2019, , 254-268.	1.0	6
89	Efficient Nearest-Neighbor Query and Clustering of Planar Curves. Lecture Notes in Computer Science, 2019, , 28-42.	1.0	3
90	Exploring Successful Team Tactics in Soccer Tracking Data. Communications in Computer and Information Science, 2020, , 235-246.	0.4	3
91	Differentiate the Game Maker in Any Soccer Match Based on Social Network Approach. IEEE Transactions on Computational Social Systems, 2020, 7, 1399-1408.	3.2	6
92	Multi-task Information Bottleneck Co-clustering for Unsupervised Cross-view Human Action Categorization. ACM Transactions on Knowledge Discovery From Data, 2020, 14, 1-23.	2.5	15
93	Succinct Trit-array Trie for Scalable Trajectory Similarity Search. , 2020, , .		6

#	Article	IF	CITATIONS
94	Markov decision processes with dynamic transition probabilities: An analysis of shooting strategies in basketball. Annals of Applied Statistics, 2020, 14, .	0.5	12
95	Design and Implementation of Beach Sports Big Data Analysis System Based on Computer Technology. Journal of Coastal Research, 2019, 94, 327.	0.1	12
96	Factors associated with cooperative network connectedness in a professional Australian football small-sided game. Science and Medicine in Football, 2022, 6, 511-518.	1.0	1
99	K-means for semantically enriched trajectories. , 2021, , .		3
100	Valuing Player Actions in Counter-Strike: Global Offensive. , 2020, , .		10
101	Computational Method for Optimal Attack Play Consisting of Run Plays and Hand-pass Plays for Seven-a-side Rugby. , 2020, , .		7
102	VisuaLeague: Visual Analytics of Multiple Games. , 2021, , .		2
103	Two steps for scoring a point: Creating and converting opportunities in invasion team sports. PLoS ONE, 2020, 15, e0240419.	1.1	6
104	A contextual analysis of crossing the ball in soccer. Journal of Quantitative Analysis in Sports, 2021, 17, 57-66.	0.5	4
105	Filtering active moments in basketball games using data from players tracking systems. Annals of Operations Research, 0 , 1 .	2.6	2
106	Evaluating Football Player Actions During Counterattacks. Lecture Notes in Computer Science, 2021, , 367-377.	1.0	2
107	Similar Sports Play Retrieval With Deep Reinforcement Learning. IEEE Transactions on Knowledge and Data Engineering, 2023, 35, 4253-4266.	4.0	2
108	Visualization for Potential Pass Courses and Quantification for Offensive and Defensive Players in Basketball., 2021,,.		3
110	The use of player tracking data to analyze defensive play in professional soccer - A scoping review. International Journal of Sports Science and Coaching, 2022, 17, 1567-1592.	0.7	12
111	Combining Wearable Tracking Data and Deep Learning for Moving Camera Calibration. Advances in Intelligent Systems and Computing, 2022, , 109-117.	0.5	1
112	The influence of tactical and match context on player movement in football. Journal of Sports Sciences, 2022, , 1-15.	1.0	1
113	Minding Braess Paradox amid third-party logistics hub capacity expansion triggered by demand surge. International Journal of Production Economics, 2022, 248, 108454.	5.1	10
114	An efficient rating system for players based on their position statistics. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
115	Measuring players' importance in basketball using the generalized Shapley value. Annals of Operations Research, 2023, 325, 441-465.	2.6	6
118	Towards Understanding the Analysis, Models, and Future Directions of Sports Social Networks. Complexity, 2022, 2022, 1-10.	0.9	2
119	Off-ball behavior in association football: A data-driven model to measure changes in individual defensive pressure. Journal of Sports Sciences, 2022, 40, 1412-1425.	1.0	5
120	Fast Implementation for Computational Method of Optimum Attacking Play in Rugby Sevens. Smart Innovation, Systems and Technologies, 2022, , 97-109.	0.5	3
121	Characterizing player's playing styles based on player vectors for each playing position in the Chinese Football Super League. Journal of Sports Sciences, 2022, 40, 1629-1640.	1.0	1
122	Learning to Play Football From Sports Domain Perspective: A Knowledge-Embedded Deep Reinforcement Learning Framework. IEEE Transactions on Games, 2023, 15, 648-657.	1.2	0
123	Temporal Match Analysis and Recommending Substitutions in Live Soccer Games., 2022,,.		1
124	On Predicting Soccer Outcomes in the Greek League Using Machine Learning. Computers, 2022, 11, 133.	2.1	3
125	Simple mechanism rules the dynamics of volleyball. Journal of Physics Complexity, 2022, 3, 035006.	0.9	2
126	Classifying ball trajectories in invasion sports using dynamic time warping: A basketball case study. PLoS ONE, 2022, 17, e0272848.	1.1	1
127	Analysis of Game Actions and Performance in Young Soccer Players: A Study Using Sequential Analysis. Sustainability, 2022, 14, 13263.	1.6	1
129	Conceptual Structure and Current Trends in Artificial Intelligence, Machine Learning, and Deep Learning Research in Sports: A Bibliometric Review. International Journal of Environmental Research and Public Health, 2023, 20, 173.	1.2	12
130	A vector-agent approach to (spatiotemporal) movement modelling and reasoning. Scientific Reports, 2022, 12, .	1.6	1
131	A Survey on Video Action Recognition in Sports: Datasets, Methods and Applications. IEEE Transactions on Multimedia, 2023, 25, 7943-7966.	5.2	11
132	An Improved Passing Network for Evaluating Football Team Performance. Applied Sciences (Switzerland), 2023, 13, 845.	1.3	3
133	Validation of a motion model for soccer players' sprint by means of tracking data. Scientific Reports, 2023, 13, .	1.6	0
134	Enhancements of Pass Play Quantification Method with Geometric Features of Formations., 2022,,.		1
135	Video Annotation Tool using Human Pose Estimation for Sports Training. , 2022, , .		2

#	Article	IF	Citations
136	Prototype Tactical Board Tool for Generating Optimal Offensive Patterns in Rugby Sevens., 2022,,.		1
137	Computational Method for Determining Optimal Dribbling Routes in Basketball. , 2022, , .		1
138	Extended Computation Method of Optimal Kick-pass Plays while Considering Kickers' Run Plays in Rugby Sevens., 2022,,.		1
139	Putting team formations in association football into context. Journal of Sports Analytics, 2023, 9, 39-59.	0.5	2
144	A Systematization Model for Quantitative Game Analysis. Advances in Intelligent Systems and Computing, 2023, , 182-185.	0.5	0
146	Density Approximation forÂMoving Groups. Lecture Notes in Computer Science, 2023, , 675-688.	1.0	0
147	Defensivleistung Elite-Niveau im Fu $\tilde{\text{A}}\ddot{\text{V}}$ ball: eine systematische $\tilde{\text{A}}$ œbersicht. German Journal of Exercise and Sport Research, 0, , .	1.0	1
149	ML-based Individual Contribution Assessment of Basketball Players from Their Trajectories., 2023,,.		O
152	Reale DatensÃæe – Eventdaten. , 2023, , 39-45.		0
155	Sport Analytics: Graduating From Alchemy. , 0, , .		O
156	Extraction and Visually Driven Analysis of VGI for Understanding People's Behavior in Relation to Multifaceted Context., 2024, , 241-264.		0
162	Enhanced Method for Computing Optimal Dribbling Routes Using Tracking Data in Basketball. , 2023, , .		O
163	What Data Should Be Collected for a Good Handball Expected Goal model?. Communications in Computer and Information Science, 2024, , 119-130.	0.4	0
164	The Big Three: A Practical Framework for Designing Decision Support Systems in Sports and an Application for Basketball. Communications in Computer and Information Science, 2024, , 103-116.	0.4	0
165	Event Data. , 2024, , 35-41.		0