

Tracking data - Hummarby 2019

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I. OVERVIEW ON THE TRACKING DATA WITH EXAMPLES

The provided datasets can provide some accurate representation of the player positioning as depicted in Fig. 6. That can be verified by video footage confirming the player distance to the goal as provided in Fig. ???. Sometimes, the provided datasets have some inaccurate data that record false positioning values, resulting in unrealistic surges in player speed, for example, as shown in Fig. 3. These errors can be due to several reasons, and few can be accounted to the difficulty of tracking during set-piece actions, for example, due to the crowdedness of many players at the same confined area. Switching player identity is a known cause for such errors as well. Those two examples are from Nikola Djurdjic impressive sprints leading to opening the play during the first half of the Malmö game. The accurate data are provided for 35 seconds, starting at 17:00 (mm: ss). The inaccurate data are provided for 12 seconds, beginning at 14:06. Fig. 1 shows an accurate positioning example taking place at Malmö game (17:30).

II. OVERVIEW ON GOAL SCORING AND HOW THE TEAM CREATE CHANCES

To analyse Hammarby's goals, I have studied 4 different goals scoring situations during the home games against IF Elfsborg & Malmö FF games, depicted parameters rendered in Fig. 4 are player speed (km/hr), distance from opponent goal (m), distance to closest opponent player (m), distance to the nearest teammate (m), acceleration (km/hr²) given time (seconds). Imad Khalili goals during the first half against Elfsborg are depicted in Figure 4 a, b. In both goals, Imad did a fantastic job speeding up & down, opening up space until he reaches the goal, moreover, he was present in dangerous positioning. The 1st goal buildup occurred somewhere just before the second (1135 sec around 18:53 (as mm:ss)). The red dotted line represents an estimation of the moment where the goal or the assist took place. Imad's 2nd goal parameters (4 b) are missing the goal buildup (original mistake during original figure draw) but showing the player speed and distance from goal, allowing him to be in a 1-on-1 playing position with the opponent goalkeeper. Imad continued his excellent performance at the end of the 1st half against Elfsborg, he moved very effectively, speeding up and down and alternating close and apart from both the goalkeeper and opponent players. As a result, Imad leads to perfect positioning among opponent players allowing him to perform the assist that led to opening a space at the centre in front of the penalty area allowing Tanković to score the goal shot. During the Malmö FF game, Nikola Djurdjic made his usual sprints and pushed it behind the defenders, allowing himself to receive the thrown ball and perfecting the assist to Alexander Kacaniklic for an admirable

tap-in goal. Nikola's sprint also opened the space in front of the goal by pulling 2 defenders attention. He assisted the 1st goal against Malmö FF. In conclusion, I believe that the team create chances by counter-attacks depending on the speed of the front forwards creating spaces on the flanks allowing central players to have a clear path to the goal.

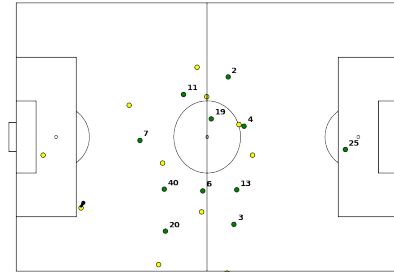


Fig. 1: Tracking data accurate positioning example

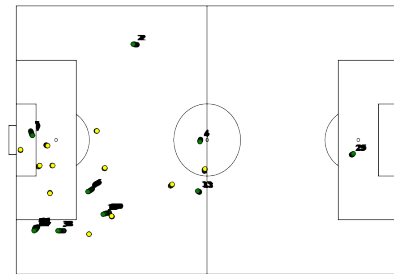


Fig. 2: Tracking data accurate positioning with direction example (needs improvements)

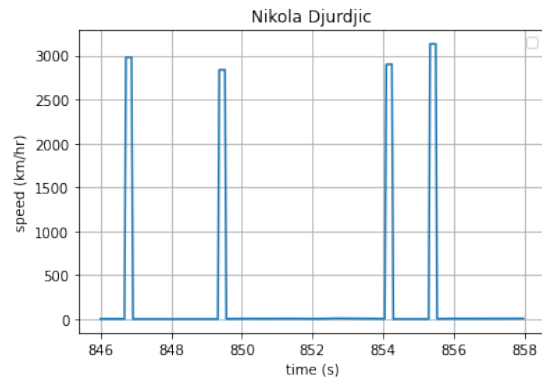


Fig. 3: Tracking data error recording surged speed values due to position recording faulty values example

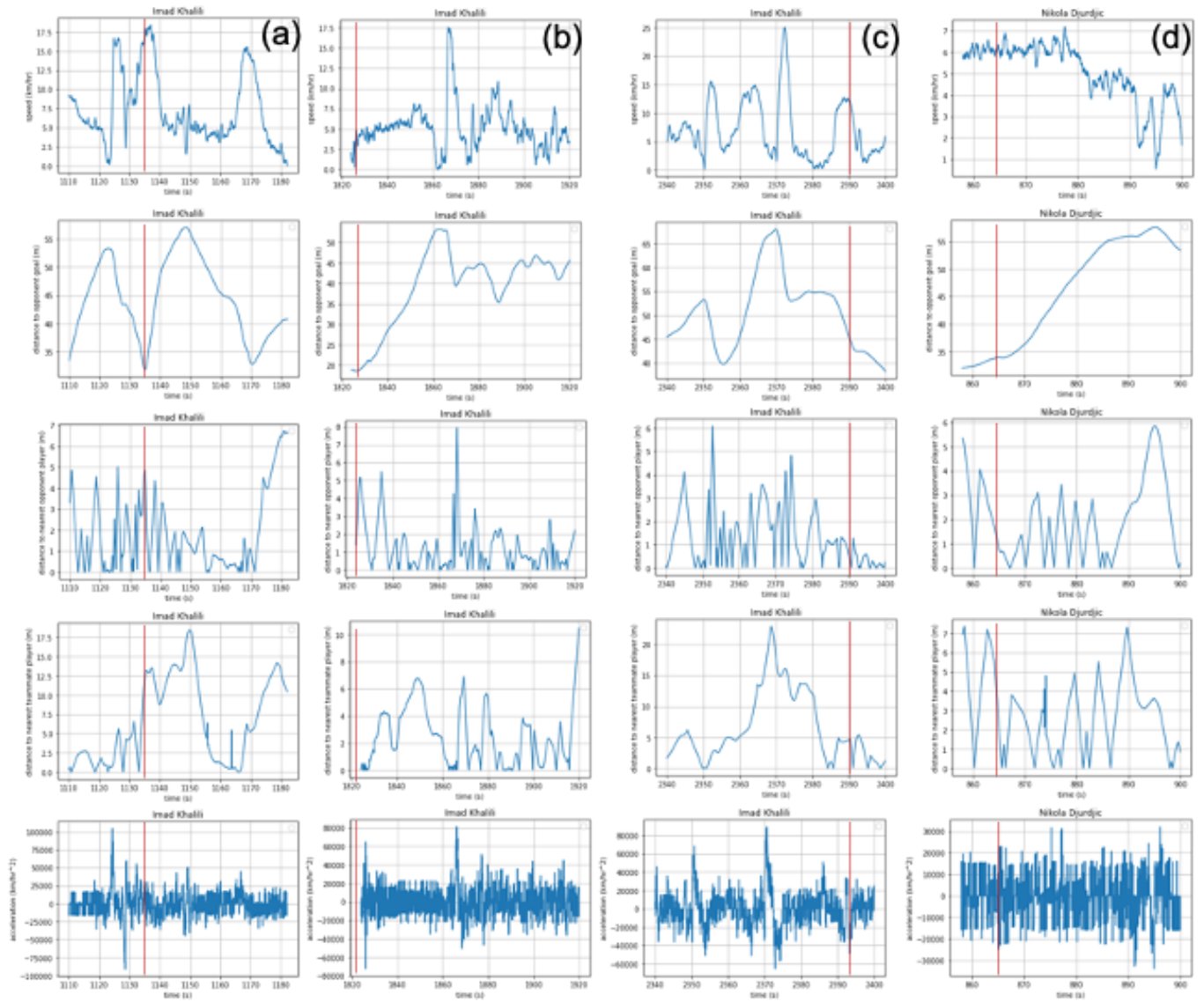


Fig. 4: Highlights around the moments where Hammarby scored goals. Depicting (from top of the figure to bottom) player speed (km/hr), distance from opponent goal (m), distance to closest opponent player (m), distance to closest teammate (m), acceleration (km/hr²) given time span (seconds). (a) Imad Khalili goals-against IF Elfsborg (1st goal in the game). (b) Imad Khalili goals-against IF Elfsborg (3rd goal in the game). (c) Imad Khalili assists against IF Elfsborg (4th goal in the game). (d) Nikola Djurdjic assists for the 1st goal against Malmö FF. The red dotted line represents an estimation of the moment where the goal or the assist took place

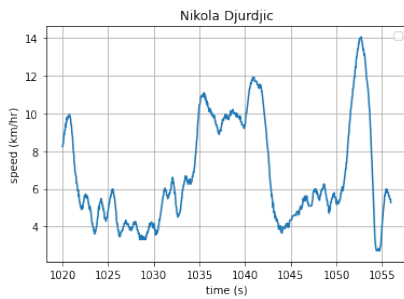


Fig. 5: Tracking data accurate speed values example

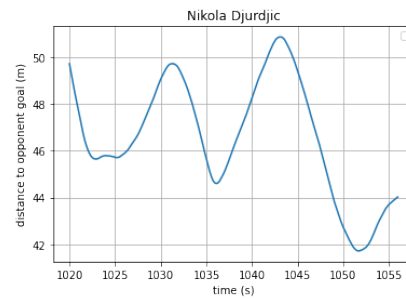


Fig. 6: Tracking data accurate distance to goal example