

1 Single camera analyses in studying pattern forming dynamics of player interactions in
2 team sports

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Abstract

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A network of patterned interactions between players characterises team ball sports. Thus, interpersonal coordination patterns are an important topic in the study of performance in such sports. A very useful method has been the study of inter-individual interactions captured by a single camera filming an extended performance area. The appropriate collection of positional data allows investigating the pattern forming dynamics emerging in different performance sub-phases of team ball sports. This chapter outlines (i) a simple and flexible motion analysis procedure to capture the movement displacement trajectories of performers using a single camera and, (ii) exemplar data illustrating the analysis methods employed in the identification of pattern forming dynamics in a 3vs3 sub-phase of association football near the scoring areas.