

A review of spatio-temporal metrics in invasion game sports.

MCINERNEY, Ciaran http://orcid.org/0000-0001-7620-7110, FOSTER, Leon

- http://orcid.org/0000-0002-1551-0316, CHOPPIN, Simon
- http://orcid.org/0000-0003-2111-7710, STONE, Joseph
- http://orcid.org/0000-0002-9861-4443 and GOODWILL, Simon
- http://orcid.org/0000-0003-0638-911X

Available from Sheffield Hallam University Research Archive (SHURA) at:

http://shura.shu.ac.uk/14074/

This document is the author deposited version. You are advised to consult the publisher's version if you wish to cite from it.

Published version

MCINERNEY, Ciaran, FOSTER, Leon, CHOPPIN, Simon, STONE, Joseph and GOODWILL, Simon (2016). A review of spatio-temporal metrics in invasion game sports. In: XI World Congress of Performance Analysis of Sport, University of Alicante, Alicante, Spain, 16-18 Nov 2016. (Unpublished)

Copyright and re-use policy

See http://shura.shu.ac.uk/information.html



A review of spatio-temporal metrics in invasion game sports

Ciarán McInerney1,

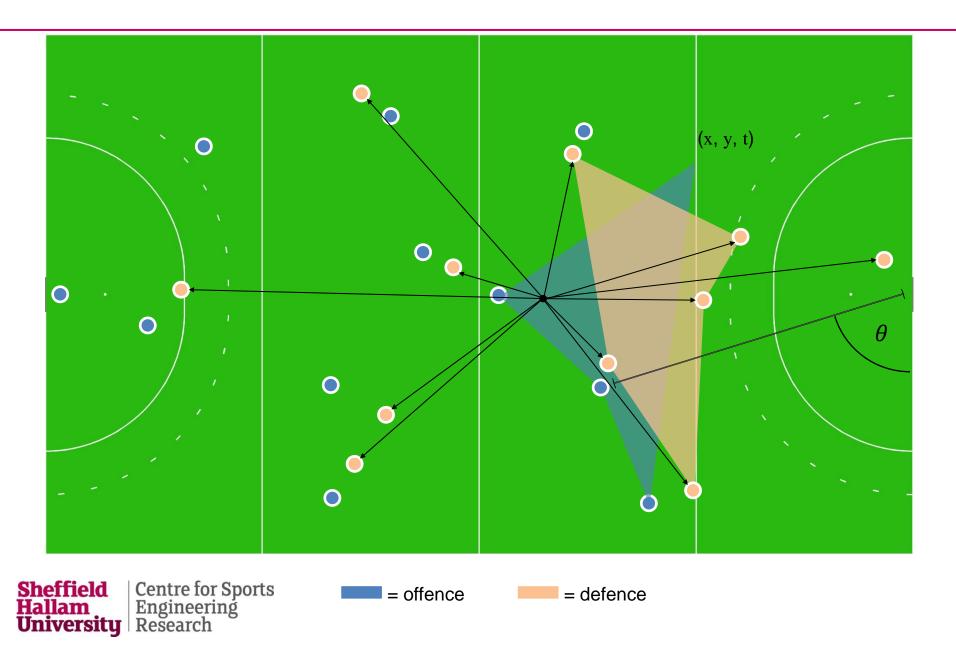
Dr. Leon Foster¹, Dr. Simon Choppin¹, Dr. Joseph Stone², Dr. Simon Goodwill¹

¹Centre for Sports Engineering Research, Sheffield Hallam University ²Academy of Sport and Physical Activity, Sheffield Hallam University

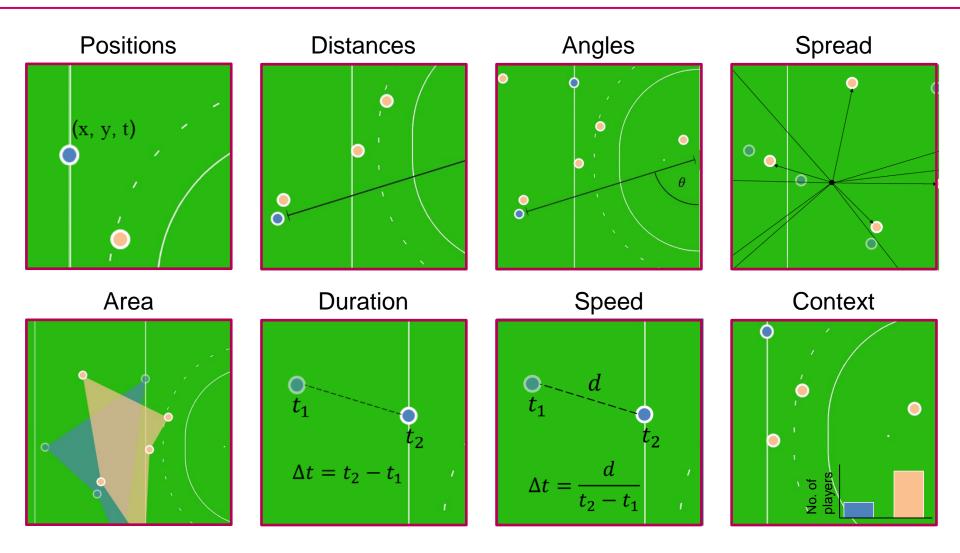




Introduction

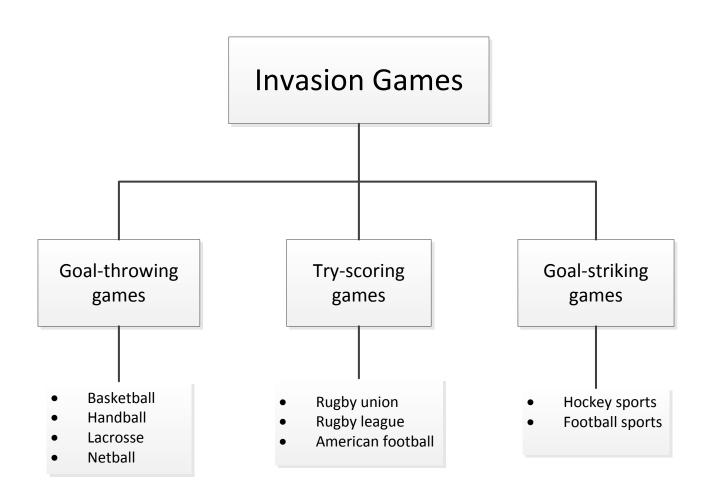


Introduction





Introduction



Read & Edwards (1997) Teaching children to play: A resources for primary teachers 5-11



Method

Databases:

Scopus SPORTDiscus

PubMed Web of Science

Science Direct GoogleScholar

Search criteria:

("performance analysis" OR "notational analysis" OR "performance indicator*")

AND (sports OR sport) AND (goal* OR scor*)

AND (offen* OR defen*) AND (team OR teams)



Method

Articles for review of title and abstract

Articles for review of title full text

Not about competitive sport, n = 47Not an invasion game sport, n = 92Not investigating open play, n = 73No performance metrics, n = 14

Articles included

$$n = 355$$

Discussion

1. Consensus on definitions

International Journal of Performance Analysis in Sport 2012, 12, 52-63.

Operational definitions in performance Analysis and the need for consensus.

Jason J. Williams

Cardiff School of Management, Cardiff Metropolitan University, Cardiff, UK.



Discussion

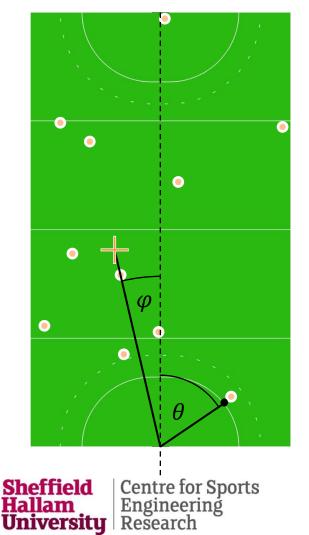
2. Sport-specific metrics

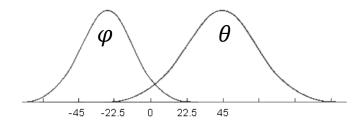
Sport	Sport-specific actions
Australian Rules Football	Hit-outs, Kicks
Basketball (including wheelchair)	Rebounds
Hockey (field, ice, sledge)	Circle entries, Off-sides, Saves
Floorball	Saves
Football (Soccer)	Kicks, Off-sides, Saves
Futsal	Kicks, Saves
Gaelic football	Kicks, Saves
Handball	Saves
Rugby (league, sevens, union, wheelchair)	Breakdowns, Conversions, Jackals, Kicks, Line breaks, Mauls, Offside, Rucks
Water polo	Saves



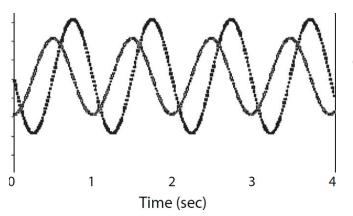
Discussion

3. Data guides analysts





Discrete data



Continuous data

Conclusion

1. Consensus on definitions

2. Sport-specific metrics

3. Data guides analysis





A review of spatio-temporal metrics in invasion game sports

Ciarán McInerney

c.mcinerney@shu.ac.uk

Centre for Sports Engineering Research, Sheffield Hallam University



