



HELLENIC REPUBLIC  
National and Kapodistrian  
University of Athens



DEPARTMENT OF  
INFORMATICS &  
TELECOMMUNICATIONS

# **Event and Sub-Event Detection in Social Networks**

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# Motivation



facebook



stackoverflow



FOURSQUARE

# Motivation



facebook



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## Music events

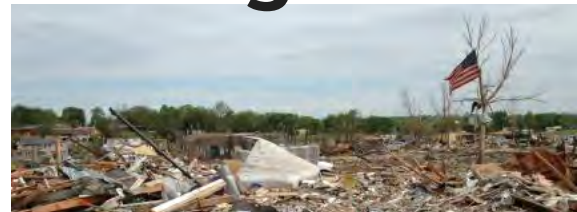


## Sport Events



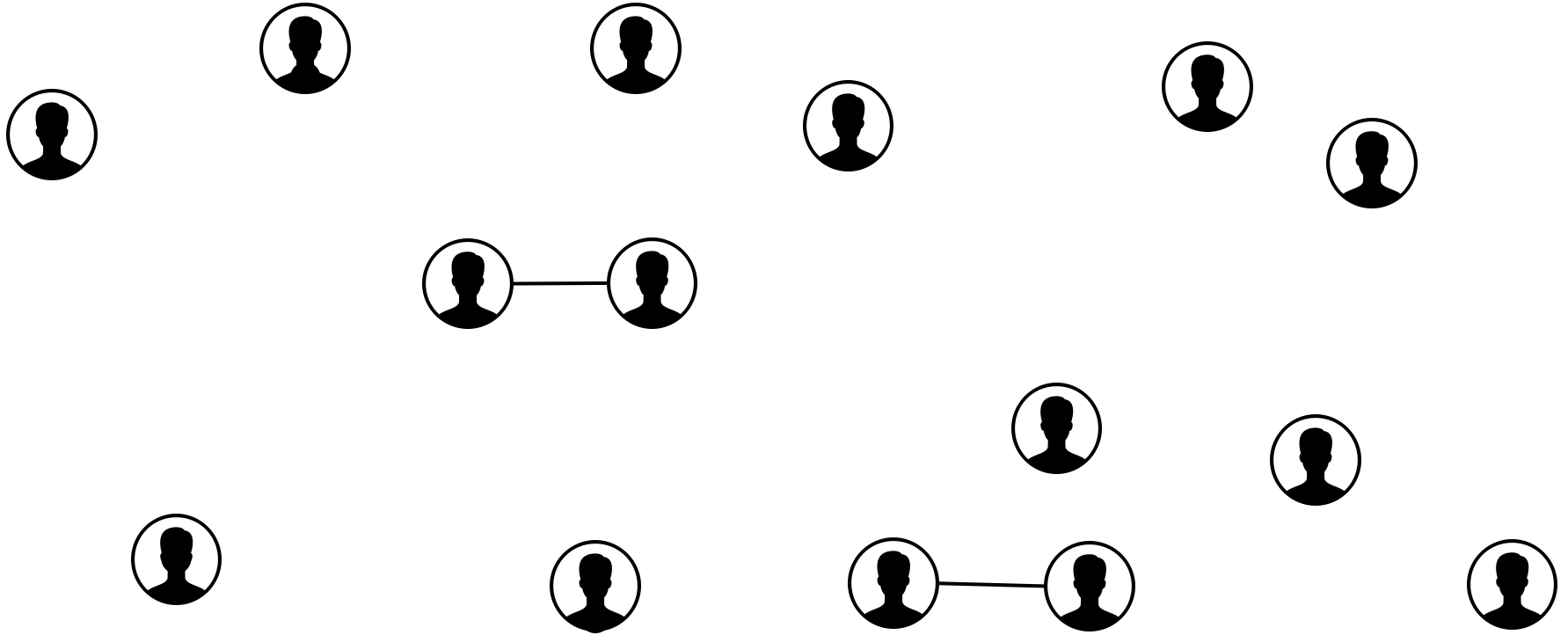
GEC 2019

## Disasters & Emergencies

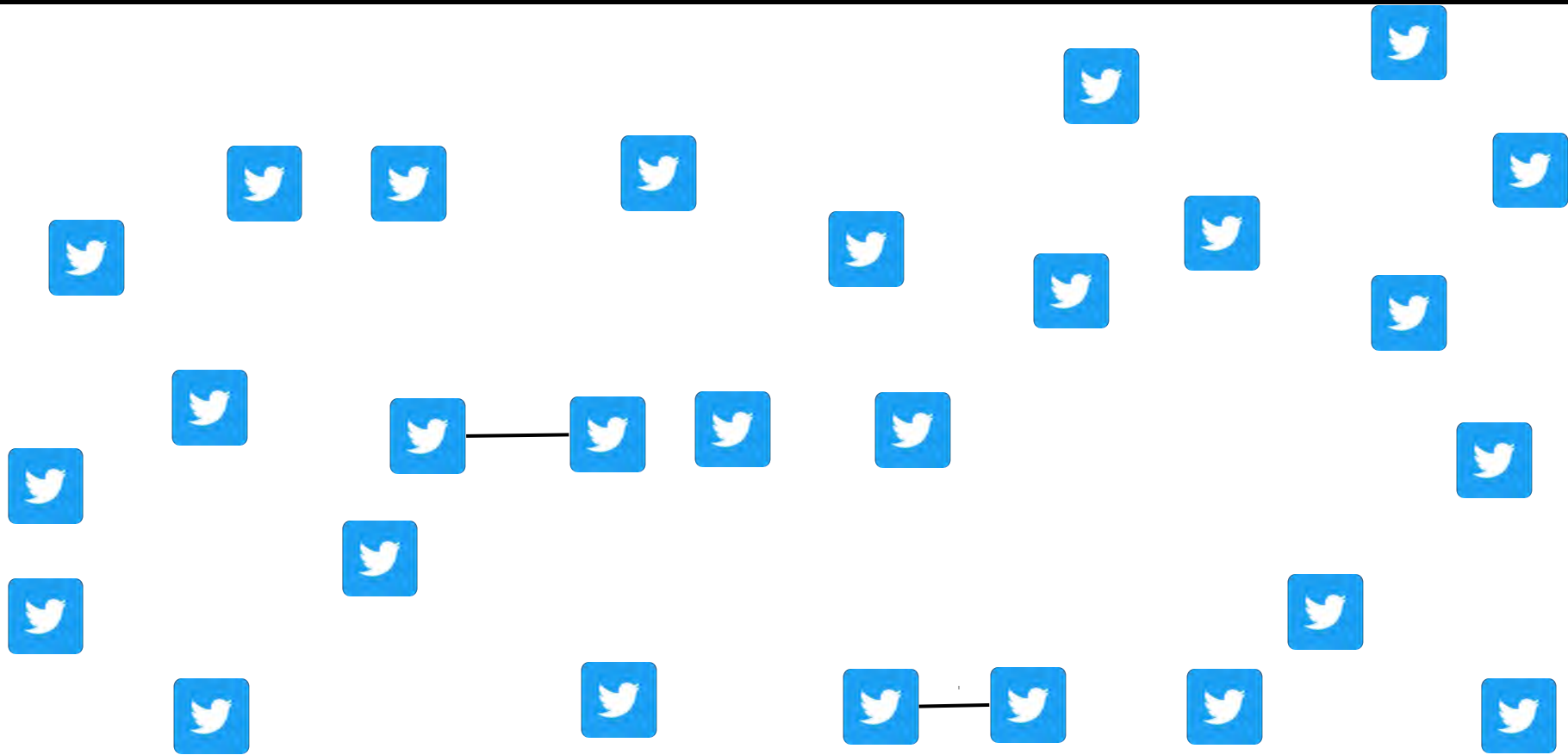


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# Structured based methods (users)



# Content-based methods (contents)

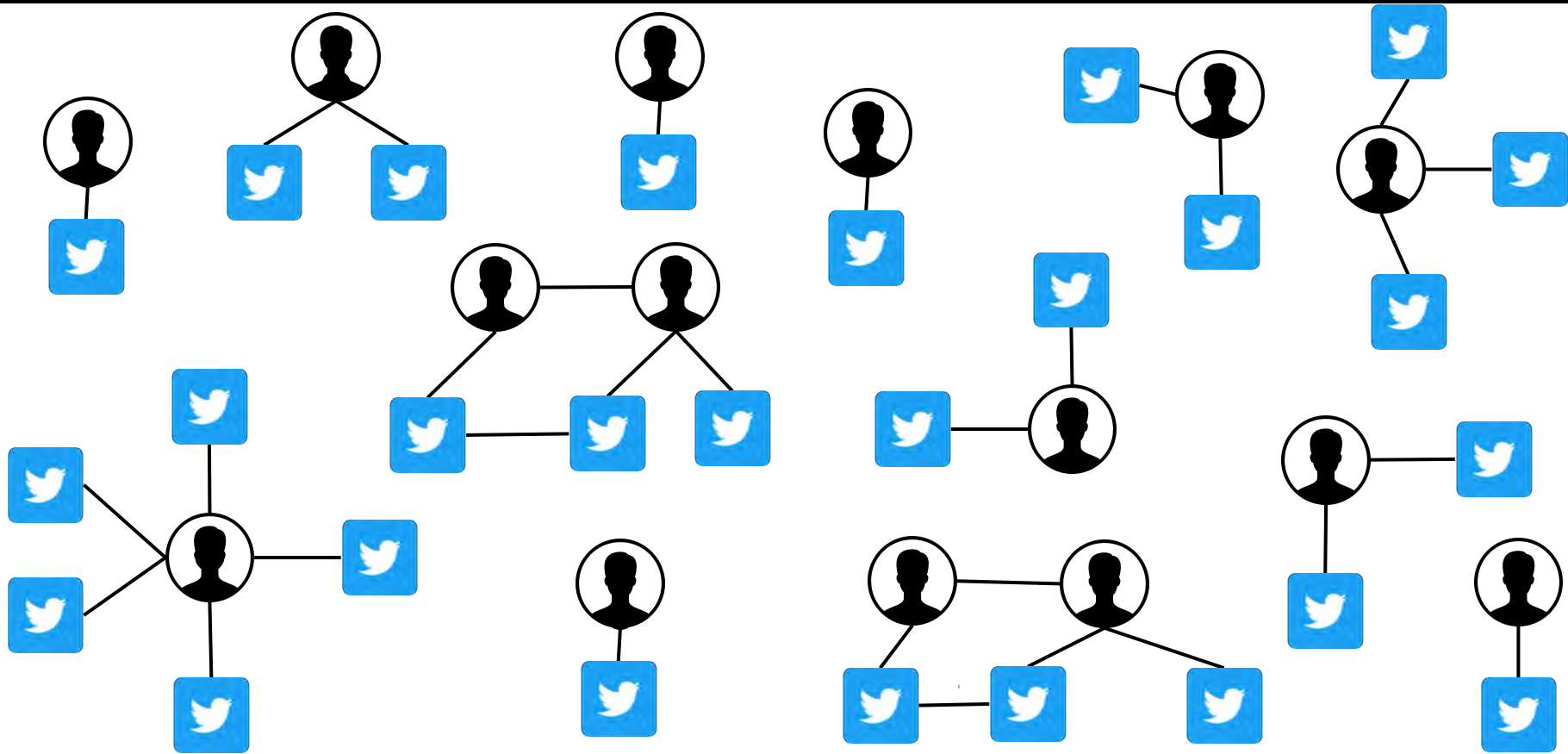


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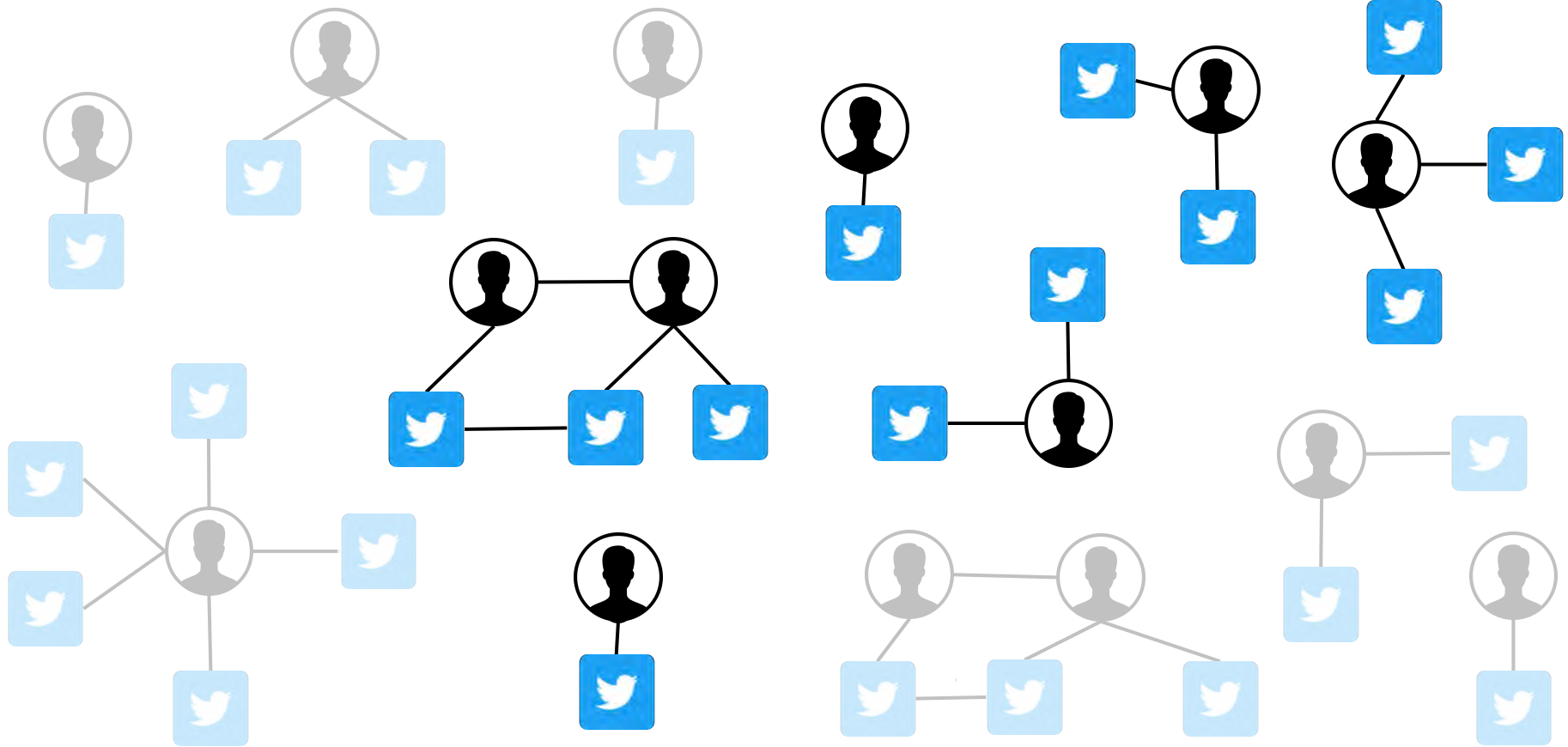
# Our method (heterogeneous graph)



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# Detect activity about Events



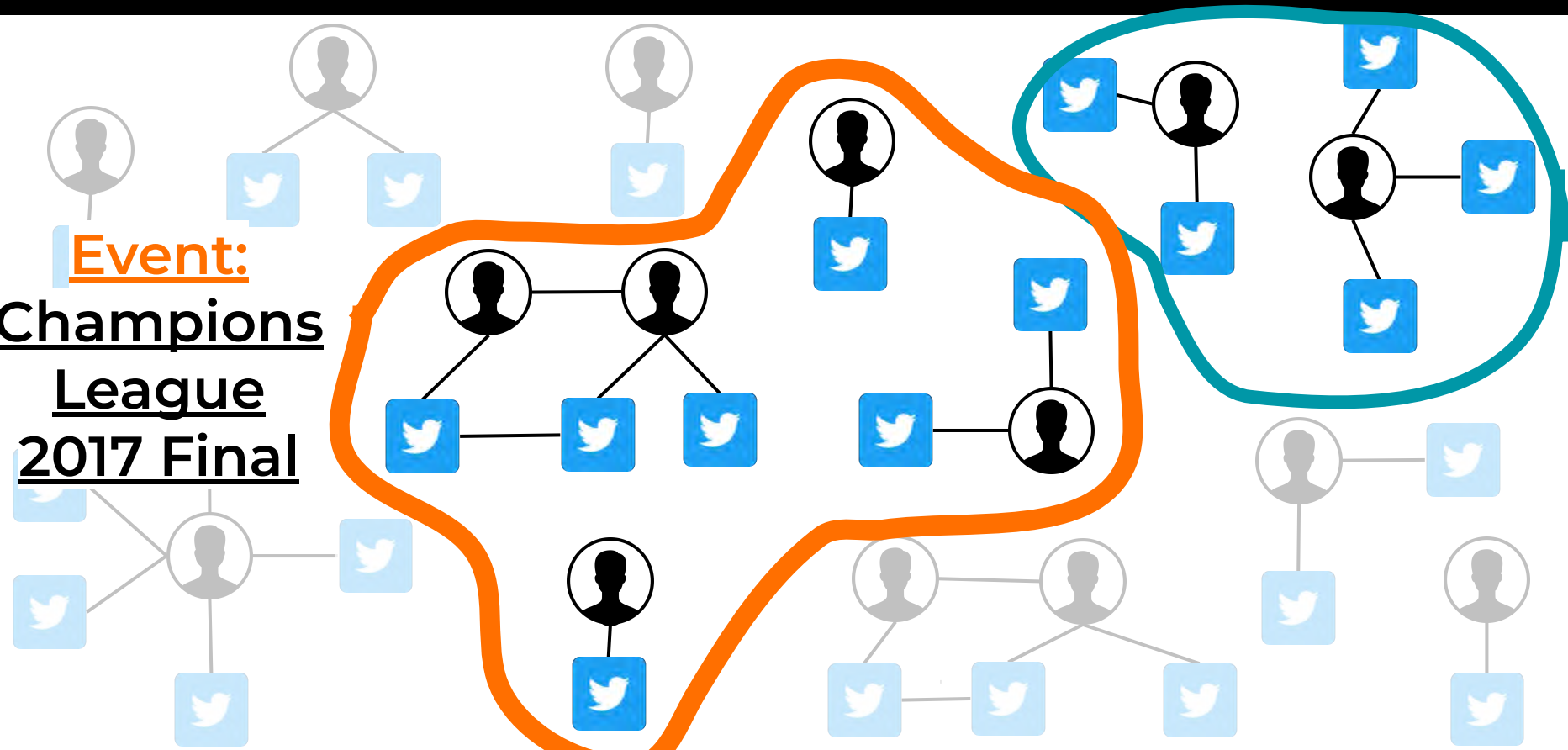
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# Group similar activity to events

**Event:**  
Champions League 2017 Final



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# Timeline of the Event (Sub-Events)

**Event: Champions League 2017 Final Match**



# Timeline of the Event (Sub-Events)

## Event: Champions League 2017 Final Match

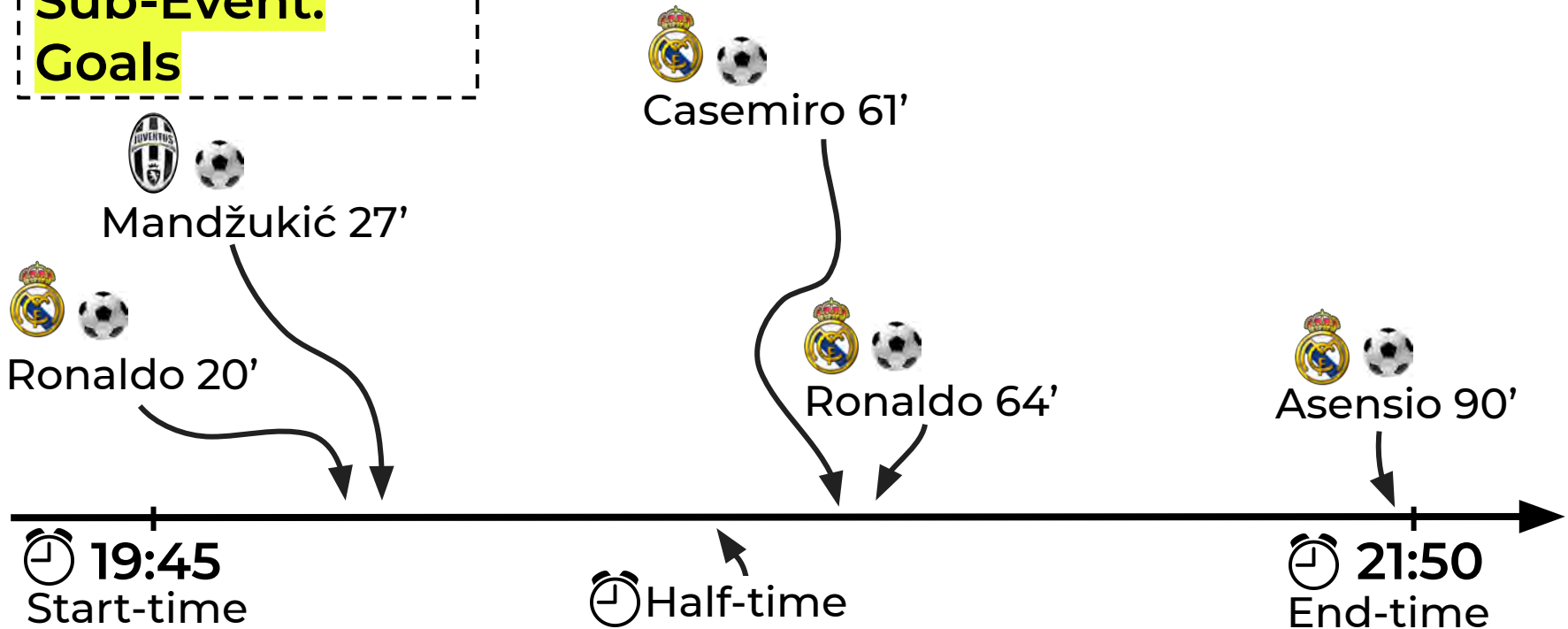
Sub-Event:  
Start-End Time



# Timeline of the Event (Sub-Events)

## Event: Champions League 2017 Final Match

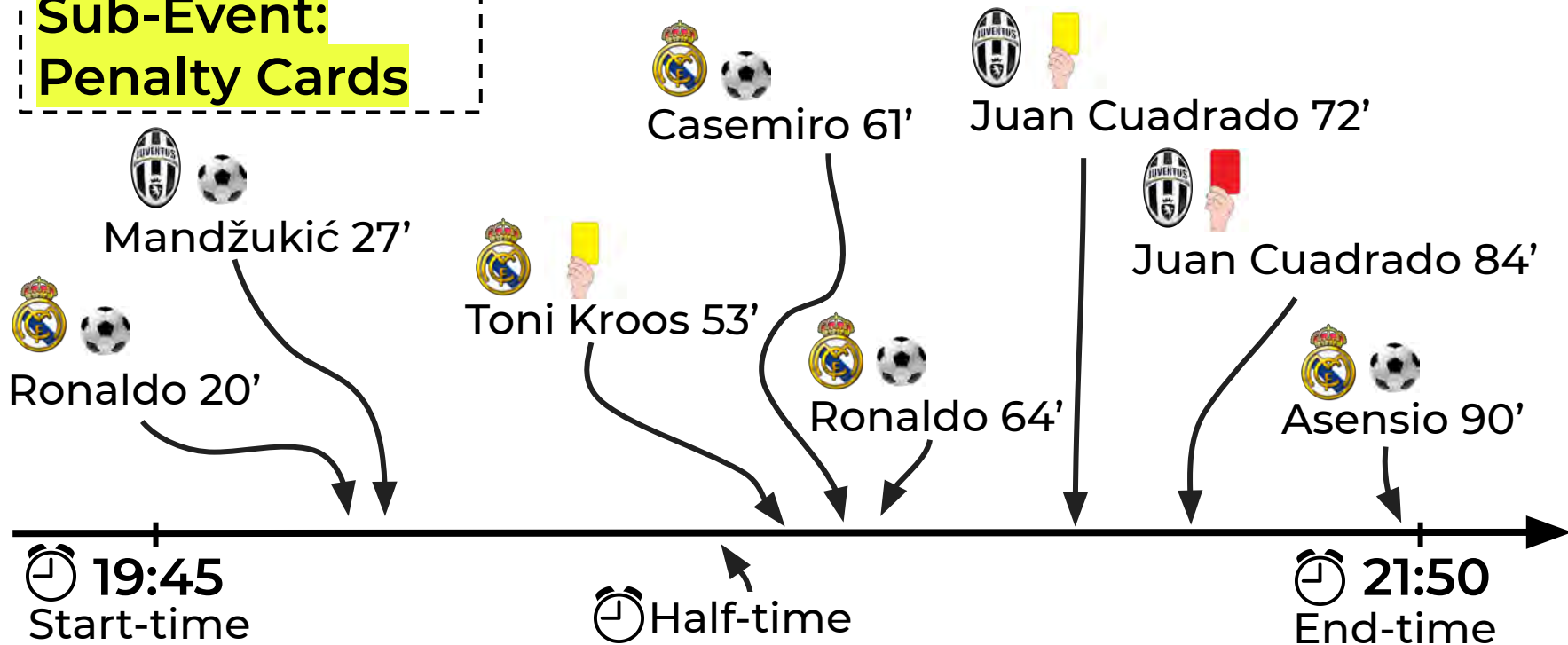
### Sub-Event: Goals



# Timeline of the Event (Sub-Events)

## Event: Champions League 2017 Final Match

### Sub-Event: Penalty Cards



**THANK YOU!**

**Poster ID: 06**

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