# Identifying structural footprints of emergent and inauthentic coordinated behaviour on Twitter.

Student involved in the proposal:

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## 1. Domain, background

This project is based on multiple resources.

First on an article explaining how political astroturfing whose aim is to dive the false impression of independent popular support works:

Keller, Franziska B., et al. "Political astroturfing on Twitter: How to coordinate a disinformation campaign." Political Communication 37.2 (2020): 256-280.

Secondly, we want to use as a reference an article which explains how political astroturfing is structured:

Aguilera, Miguel. "Rhythms of the collective brain: metastable synchronization and cross-scale interactions in connected multitudes." Complexity 2018 (2018).

Finally, our last paper show that this kind of disinformation campaign emerge spontaneously during crisis events such as the pandemic:

Esquirol, Bernat, et al. "Characterizing Twitter users' behaviour during the Spanish Covid-19 first wave." arXiv preprint arXiv:2012.06550 (2020).

Data that will be analysed will come from the Twitter Moderation Research Consortium and from networks created based on co-tweet, co-retweet and retweets networks.

## 2. Aim(s) of the research

Primary goals:

a) Apply different structural characterization to different network representations of Twitter interactions to identify inauthentic coordinated behaviour.
b) Characterise different types of inauthentic behaviour by analysing the Twitter moderation Research Consortium datasets.

## 3. Hypotheses to be tested

The hypothesis to be tested is the following one: Political astroturfing campaigns with different scopes leaves different structural footprints.

## 4. Theorical framework

- Graph theory in social networks
- Political Astroturfing
- Complex network
- Social capital
- Social influence
- Community structure

## 5. Methods

Structural characterization of studied networks. Social network analysis.