

**Master CS - Data Science**

# **Pattern Mining & Social Network Analysis**

**Personal Work**

Pascale Kuntz

2017-2018



## Analyze a Twitter conversation

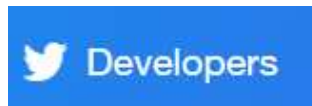
- Define a Twitter conversation  
(e.g. « retweet » between two tweets ; « reply » between two individuals)
- Extract a set of tweets on a chosen subject (from a given tweet or a hashtag)
- Build the graph which models a conversation
- Analyze the structure of the graph
- Write a report (10 pages)



## Analyzing a Twitter conversation

### Tweet attributes:

Tweet text
Unique tweet ID
Date and time tweet was posted <sup>†</sup>
UTC offset (from GMT)
User's location
User ID
Date and time user's account was created
User's current follower count
User's current friends count
User's total number of tweets
In-reply-to tweet ID*
In-reply-to user ID*
Retweet (Y/N)



Use Twitter API's : API REST, API Streaming

P. Cogan, M. Andrews, M. Bradonijc, W.S. Kennedy, A. Sala, G. Tucci (2012). Reconstruction and analysis of Twitter conversation graphs. In *Proc. of the 1st ACM Int. workshop on Hot Topics on Interdisciplinary Social Networks Research*, pp. 25-31.

B.A. Mathew, T. Chakraborty, N. Ganguly, S. Datta (2016). Mining twitter conversation around e-commerce Promotional events, In *Proc. of the 19th ACM Conf. on Computer Supported Cooperative Work and Social Computing Companion*, pp. 345-348