

# HiggsTweet: Analyzing Influence Propagation During a Viral Event on Twitter

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## 1 INTRODUCTION

Analyze the power dynamics in the physics web-community at the time of a viral event.

Q: Which users to influence if we wish to spread scientific misinformation?

## 2 RELATED WORK

## 3 PRELIMINARIES

Present IM problem

## 4 THE DATA SET

Social Network + Action Log

500k users; 14M edges (following/followee); 500k directed, typed actions

## 5 OUR APPROACH

Combining social network + "action edges" and running community based IM.

### 5.1 Computing Edge Probabilities

**Idea:** Use WC probs with different weights for different action-types.

- Hard to validate
- Hard to compare
- Effects of  $p_{uv}$  on runtime.
- Effects of  $p_{uv}$  on spread.

### 5.2 Influence Maximization

Greedy, CELF, or MIA? What to do..

**Idea:** Divide and conquer—preprocess with community detection. Wang (2012)

## 6 RESULTS

## 7 DISCUSSION

### 7.1 Future Work

Impact of time.

Content of tweets - sentiment analysis.

Compute  $p_{uv}$  using unsupervised learning approach. Perform evaluative analysis.

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