

# Event Detection from the Spatial-Temporal Perspective

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## Abstract

In the present pandemic context of multimedia object, spatiotemporal data mining has become increasingly important and has significant implications for all people. Starting with the second week of March 2020, World Health Organization announced COVID19 outbreak as a pandemic. Our paper analyses Twitter social network data from a spatiotemporal perspective in order to label the potential pandemic for a certain region, based on a certain tweet. This research work has taken into account 500.000 tweets from all USA states, gathered from 1st February 2020 until now and also relevant statistics related to the number of cases, deaths and recovered patients. Our goal is to provide a meaningful prediction by classifying tweets' pandemic potential as Insignificant, Significant, High or Very High.

**Keywords:** spatiotemporal data; data mining; Twitter; NLP

**Domain:** computer science

**Section:** Elaboration of the doctoral thesis

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