1145-90-1881   **Himanshu Ahuja** (`himanshuahuja_bt2k15@dtu.ac.in`) and **Alexander C Michels***
(`michac22@wclive.westminster.edu`). *Computational Fact-Checking through Relational
Similarity based Path Mining.* Preliminary report.

The volume of information today is outpacing the capacity of experts to fact-check it, and in the Information Age the real-world consequences of misinformation are becoming increasingly dire. Recently, computational methods for tackling this problem have been proposed with many of them revolving around knowledge graphs. We present a novel computational fact-checking algorithm, RelPredPath, inspired by and improving on the techniques used in state-of-the-art fact-checking algorithms, PredPath and Knowledge Stream. Our solution views the problem of fact-checking as a link-prediction problem which relies on discriminitive path mining, but draws on relational similarity and node generality to redefine path length. This gives our solution the advantage of training on more specific paths consisting of edges whose predicates are more conceptually similar to the target predicate. RelPredPath shows performance at-par with other state-of-the-art fact-checking algorithms, but leads to a more robust and intuitive model for computational fact-checking. (Received September 24, 2018)