## WHAT CAN WIKIPEDIA AND GOOGLE TELL US ABOUT STOCK PRICES UNDER DIFFERENT MARKET REGIMES?

## Matjaz Omladic<sup>1</sup>, Boris Cergol<sup>2</sup>

<sup>1</sup>Mathematics Institute of Mathematics, Physics and Mechanics - Ljubljana matjaz@omladic.net

## Abstract

## ARS MATHEMATICA CONTEMPORANEA 9 (2015) 311330

Abstract: In less than five years a surprisingly high level of attention has built up in the possible connection between internet search data and stock prices. It is the main aim of this paper to point out how this connection may depend heavily on different regimes of the market, i.e. the bear market vs. the bull market. We consider three types of internet search data (relative Google search frequencies of company tickers, relative Google search frequencies of company names and page visits of Wikipedia articles about individual companies) and a substantial sample of companies which are members of the S & P 500 index. We discover two inverse patterns in stock prices: in the bear market what we propose to term a merry frown and in bull market a sour smile, both clearly seen especially for the Wikipedia data. We propose market neutral strategies that exploit these new patterns and yield up to 17% in average annual return during our sample period from 2008 to 2013.