

Abstract Submitted
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Characterization of stock market regimes by data compression¹

EUGENIO E. VOGEL, GONZALO SARAVIA, Universidad de La Frontera, Temuco, Chile — It has been shown that data compression can characterize magnetic phases (Physica A 388 (2009) 4075). In the introduction of this presentation we briefly review this result. We then go onto introducing a new data compressor (wzip) developed by us to optimize recognition of meaningful patterns in the compressing procedure, yielding sharp transition curves at the magnetic critical temperatures. The advantages of the new compressor, such as better definition and tuning capabilities are presented. The rest of the talk consists of applying wzip to the Chilean stock market along several months during 2010. The accumulated daily data allow to recognizing days with different types of activity. Moreover, the data recorded every minute allow to analyzing the “present” status of the stock market by applying wzip to the data of the last hour or couple of hours. Possible extensions of the application of this technique to other fields are discussed.

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Eugenio E. Vogel
Universidad de La Frontera, Temuco, Chile

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