

S E M I N A R



Prof Carel Olivier
North-West University

Date:

Friday, 2 Aug 2024

Time:

11h30-12h30 SAST

Venue:

- Seminar room K310, Physics building G5, North-West University, Potchefstroom Campus
- Online

Enquiries:

Email Lendl Fransman:
Lendl.Fransman@nwu.ac.za

An Introduction to Time Series Analysis Using Permutation Entropy

C. P. Olivier¹ and P. O. Obanya^{2,3}

¹*Pure and Applied Analytics, School of Mathematical and Statistical Sciences, North-West University*

²*Unit for Data Science and Computing, North-West University*

³*NITheCS*

ABSTRACT:

Permutation entropy analysis (PEA) is a pattern recognition tool that identifies structures within the fluctuations of a time series. A celebrated feature of PEA is its ability to distinguish between stochastic and chaotic processes. However, more recently it has proven capable of identifying transitions within the underlying process. In order to explore this characteristic in more detail, a brief overview of the method is provided. This is followed by illustrations of its ability to identify changes in the underlying processes from a variety of applications, namely space science, financial markets and industrial process monitoring.

WHO SHOULD ATTEND?

All are welcome!

REGISTER: <https://bit.ly/3LvUrGK>

Register by **26 July 2024** to attend in person

