



Dirección General de Investigación, Innovación y Postgrado

Dr. Ing (c)  
Paola Arce Azócar  
Scottish Association for Marine Science  
Scottish Marine Institute, Oban, Argyll, Scotland.  
PA37 1QA

Estimada Dra. (c) Arce,

la UTFSM tiene el agrado de invitarla a dictar un ciclo de tres conferencias en la UTFSM durante los meses de Diciembre 2017 y Enero 2018 acerca de los temas de su especialidad.

Según hemos convenido en nuestras anteriores comunicaciones, la descripción de estas tres conferencias sería la siguiente:

1. Fast and adaptive cointegration based model for forecasting financial time series

Cointegration is a long-run property of some non-stationary time series where a linear combination of those time series is stationary. This behaviour has been studied in finance because cointegration restrictions often improve forecasting. The Vector Error correction model (VECM) is used to model cointegrated time series but only with batch data and rarely used with high frequency data mainly due to computational limitations. In this talk, I will present an approach to extend the use of VECM with high frequency data.

2. Online learning methods for financial time series forecasting

Online learning methods is a supervised machine learning framework that is useful when we have sequential access to a sample only once which is the scenario of many problems that include time series analysis. In this study, I have focused the application of online learning algorithms to financial time series even though it can be easily extended to other non-stationary time series. In this conference, I'll present two algorithms based on online learning to model the overall behaviour of time series with a long term relationship.

3. RNA-seq analysis: Computational challenges.

RNA-seq (RNA sequencing) is a recently developed approach to transcriptome profiling that uses deep-sequencing technologies. It uses next generation sequencing to reveal the presence and quantity of RNA in a biological sample at a given moment in time. RNA-seq is used to analyse the continually changing cellular transcriptome, and particularly facilitates the detection of changes in gene expression. In this conference, I'll give an introduction to this technology, a possible analysis pipeline and the computational challenges I've found so far.



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Nuestra invitación considera el pago de honorarios suficientes como para cubrir los gastos de su viaje GLASGOW (Escocia) – SANTIAGO (Chile) – GLASGOW (Escocia), los que estarán sujetos a la legislación tributaria chilena.

Saluda atentamente a Ud.,

DRA. LORNA GUERRERO S.

VALPARAÍSO, 27 de Noviembre de 2017.