



Università
Ca' Foscari
Venezia

**Research fellowship on - *Dimensionality reduction techniques in forecasting with large panel* -
Università Ca' Foscari Venezia (Italian law 30 December 2010, n.240, art. 22)**

The present document in English is to be considered as a mere summary of the main provisions of the notice of competition which is available in Italian at the following link: <http://www.unive.it/data/12137/> The text in Italian is the official text of the notice of competition for all legal intents and purposes and, in the event of non-conformity with the present document, it shall prevail.

Description

The Department of *Economics* at Università Ca' Foscari Venezia invites applications for a fellowship in:

- **Title:**

Dimensionality reduction techniques in forecasting with large panel.

- **Academic Discipline or disciplines specifically identified by the call** SECS-P/05;
- **scientific coordinator and tutor:** Prof. Roberto Casarin
- **duration:** 12 months

abstract:

In recent years an active area of research emerged in economics and finance, which aims at handling inference on high dimensional and complex data by combining machine learning methods with econometric models. This project aims to investigate the application of dimensionality reduction methods in forecasting with large panel and builds on the literature on traditional (such as Principal Component Analysis, Independent Component Analysis) and relatively new dimensionality reduction methods (such as Sammon projection, Multidimensional Scaling, Isomap, Laplacian eigenmaps, and Local linear embedding, Random Projection, Kernel PCA, Nonlinear Factor Analysis), available from machine learning and statistics. Under a methodological point of view, given to the complexity of the challenges, this project will focus on some of these dimensionality reduction techniques, with the aim of proposing new econometric models for large dimensional data and assessing the properties of the estimators and predictors for the proposed new models.

Who can apply

Prospective candidates are expected to hold a master's degree in the subjects of the research, or related disciplines.

Ca' Foscari encourages applications from researchers with positive evaluation in all the criteria in individual proposals such as Marie Skłodowska Curie Actions - Individual Fellowships/ERC Starting Grants/FIRB (Italian Fund for basic research investments)/SIR (Scientific Young Independence Research) or similar.

Researchers having successfully completed Marie Skłodowska Curie Actions - Individual



Fellowships/ERC Starting Grants/FIRB (Italian Fund for basic research investments)/SIR (Scientific Young Independence Research) or similar funded projects are warmly encouraged to apply.

Duration of contract: 12 months (approximately starting on September 2020).

Stipend: The research fellowship amounts to **Euro 19.541,00.=**per year, gross to the recipient, net of the expenses to be sustained by the Provider. The amount may be subject to adjustment in the event of variations in the law.

Deadline for submission of applications: by and no later than 2020-10-012, h. 12:00 noon – local time.

If the deadline is on Saturday or on holidays, the deadline is extended to the first working day thereafter.

How to apply:

Candidates should submit:

1. The application form;
2. A motivation letter (max 1 page) along with their CV in European format, duly dated and signed, both to enclosed as a one single.pdf file. (<http://www.unive.it/pag/28830>)
3. A copy of a valid identity document (either Identity Card or Passport);
4. (If available) Evaluation Summary Reports of Marie Skłodowska Curie Actions - Individual Fellowships/ ERC Starting Grants/FIRB (Italian Fund for basic research investments)/SIR (Scientific Young Independence Research) individual proposals having passed all the evaluation thresholds;
5. (If available) Doctoral degree;
6. Declaration on availability to held the interview in remote (<https://www.unive.it/pag/28830>) to be send via email at the following address: simar@unive.it:
7. (If available) Details of Marie Skłodowska Curie Actions - Individual Fellowships, ERC Starting Grants, FIRB (Italian Fund for basic research investments)/ SIR Scientific Young Independence Research funded projects;
8. All documents, qualifications and publications relevant for the selection procedure (please, see the notice <http://www.unive.it/data/28825/>).

All the schemes of the quoted documentation are available on the website

<http://www.unive.it/pag/28830>.

How to submit your application

Applications should be submitted by the online procedure, available on the notice webpage <http://www.unive.it/data/28825/>

Or submit here:

<https://apps.unive.it/domandeconcorso-en/accesso/dec-casarincofin-16092020>



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The candidate, after the uploading, will receive a submission number and an e-mail acknowledging receipt of his/her application.

The candidate if necessary could access the procedures for updating any data and materials by the link provided by the e-mail, in any case any updates must be made no later than the deadline **2020-10-01, h. 12:00 noon – local time.**

If the deadline is on Saturday or on holidays, the deadline is extended to the first working day thereafter.

Please note that the University can be contacted for any support needs by the candidate until 24 hours prior to the deadline.

Please note that in case of an high number of applications and / or weight of the materials loaded by the candidates the system might become slower, Therefore it is suggested not to start the process close to the deadline.

NB: the University does not take on responsibility for wrong or late communication of addresses, nor for any communication problem not depending on the University.

Evaluation

Up to 100 points, specifically:

For qualifications, publications and possible tests, from 0 to 60;

For interview, from 0 to 40.

Selection procedure

The interview will be held in remote only. Further details on how to connect online will be published alongside the convocation notice

The interview will be on **2020/10/08, at 10.00 AM.**

The short-list of the candidates admitted to the interview, or any postponement, will be published on the University's webpage on 2020/10/05 (<http://www.unive.it/data/28899/>).

Information and contacts

Candidates may find further details about the application process and the research project in the official call published on the following webpage <http://www.unive.it/data/28825/>

For further information please contact: Segreteria Amministrativa del Dipartimento di Economia, phone number: 041-2349173; e-mail: simar@unive.it