

STFC Innovation Placements Opportunity

DiRAC has been awarded 8 STFC Innovation Fellowships that are of duration 6 months and have to be completed by 31 March 2020. In this scheme a final year PhD student or an early career researcher can have a funded placement (up to £21k) with a third-party organisation.

To qualify you have to be working on research that falls within the STFC remit in order to qualify for the placement; however you can be funded by other organisations besides STFC, as long as the subject area is identifiable as being in the Particle Physics, Astronomy & Cosmology, Solar Physics and Planetary Science, Astro-particle Physics, and Nuclear Physics.

To check your eligibility please contact Mark Wilkinson (miw@leicester.ac.uk) and Clare Jenner (c.jenner@ucl.ac.uk).

We will do our best to be flexible.

However, the placement can't be on your research problem, but rather on the offered innovation problem.

This should be looked on as an opportunity to learn new skills and contribute outside of your research area.

The deadline for applications is 10am on Monday 9th September 2019

We are pleased to offer the following DIRAC STFC Innovation Placement with the Office of National Statistics:

Designing an Information Retrieval System to enable new technologies and concepts to be identified from academic, government and commercial sources.

This project requires work on an Information Retrieval (IR) application that will be able to retrieve key information like popular or emerging key terminology in technical reports etc and produce forecasts for the near future. It will involve the following activities.

- Explore the use of functional Data Analysis (FDA) to interpret emerging trends in timeseries data. This can be done via a recently developed State Space Model or any other state of the art method. Results will be benchmarked against an existing ONS developed technique based on a quadratic fit.
- Explore the possibility of clustering timeseries using Dynamic Time Warping
- Use document embeddings or other similar techniques to semantically group retrieved information
- Explore and improve the forecasting ability of the tool.
- Introduce citation-co-citation weights to be used on document collections like publications or patents.
- Explore the possibility of identifying stop-words or stop-phrases from timeline frequency patterns.
- Use the improved from the above tasks pipelines to produce demand forecasts for emerging skills using job adverts as input

- Who will you work with?

Dr. Thanasis Anthopoulos Senior Data Scientist at the ONS,
Thanasis.Anthopoulos@ons.gov.uk,
(<https://datasciencecampus.ons.gov.uk/author/thanasis-anthopoulos/>).

What should you do if you are interested?

- Speak to your current supervisor and get their views BEFORE applying.
- Contact Thanasis for further information
- Send a CV and a 200 word statement on why you would want to do this Placement to Mark Wilkinson miw6@leicester.ac.uk and Clare Jenner (c.jenner@ucl.ac.uk) by 10am on Monday 9th September 2019

Professor Mark Wilkinson, DiRAC (Director)

Dr Clare Jenner, DiRAC (Deputy Director)