

# Postdoctoral Research Associate in Statistics at Imperial College London

## Job summary

The Statistics Section at Imperial College London seeks applications for the position of Research Associate, for two years starting on or around 1 October 2022. You will conduct research under the supervision of Professor David van Dyk in collaboration with the CHASC International Center for Astrostatistics. The CHASC Center is an international consortium of astrophysicists and statisticians working to solve statistical challenges arising in astrophysics, solar physics, and particle physics.

The position is funded by the Engineering and Physical Sciences Research Council in collaboration with the National Science Foundation (US). Work will focus on developing Bayesian methods and statistical software for fitting sophisticated astrophysical models to complex data collected with high-tech instruments. This often involves a sequence of statistical analyses and methodological development will focus on properly accounting for errors and carrying uncertainty forward within such sequences of analyses, paying particular attention to assessment of model and systematic uncertainties. Particular applications will include analysing the morphology of extended astrophysical images, accounting for uncertainty in instrumental effects such as point spread functions, and accounting for classification errors when analysing populations of sources.

Further information about the Statistics Section at Imperial College London can be found at: <https://www.imperial.ac.uk/statistics/> and information about the CHASC Center can be found at: <http://hea-www.harvard.edu/AstroStat/>

## Duties and responsibilities

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## Essential requirements

You must hold a PhD (or equivalent) in Statistics, Biostatistics, Astrophysics, or closely related discipline. You will have research interests in a relevant area of statistical science.

You must be able to demonstrate extensive experience developing statistical method in a collaborative scientific setting.

You will have a specialist knowledge of statistics, particularly in statistical computation, Bayesian method and/or astrostatistics or closely related areas, together with extensive experience in the development of statistical methods in a collaborative scientific setting.

In addition, you will have

- An ability to carry out original research and to produce published research papers
- An ability to identify, develop and apply new concepts, techniques and methods
- An ability to keep accurate records of research results and activity
- An ability to interact in an interdisciplinary research environment
- Excellent computing skills, particularly in R, Python, or C

## How to Apply

[Please apply online](#). In addition to completing the online application, candidates should attach (a) a full CV, (b) a 1-page research statement describing why the candidate's expertise is relevant to this position and future research plans; and (c) details of three referees.

For specific queries please contact Professor David van Dyk - [d.van-dyk@imperial.ac.uk](mailto:d.van-dyk@imperial.ac.uk)