Department of Aeronautics

**PHD STUDENTSHIP ON COMPUTATIONAL AEROELASTICITY**

**Eligibility:** A relevant connection with the UK, usually established by residence

**Deadline:** until filled

**Starting Date:** October 2022, with some flexibility

Applications are invited for a Ph.D. studentship at the Department of Aeronautics on computational aeroelasticity methods to support the development of next-generation greener wings. The scholarship is partially funded by Airbus UK through an EPSRC Industrial CASE Award.

Ambitious efficiency targets to achieve net-zero aviation are driving aircraft designs towards higher-aspect-ratio and, therefore, towards more flexible wings. Such a design ambition demands new analysis methods and processes, as well as innovative airframe concepts. Within that context, this project will investigate new architectures for the outboard part of the wings, which are likely to include movable elements (e.g., a folding wingtip) in future long-range aircraft. The project will make extensive use of the SU2 CFD open-source framework ([su2code.github.io](http://su2code.github.io)), for which computational aeroelastic capabilities have been developed at Imperial. The project will also result in new generic methods for multiobjective aeroelastic design.

This PhD project is positioned at the forefront of modelling capabilities for ultra-high-efficient aircraft design and will require an outstanding ability for multidisciplinary thinking. It needs a high level of mathematical abstraction and applicants should possess excellent analytical and computational skills. The student will join Imperial’s Load Control & Aeroelastics Lab ([imperial.ac.uk/aeroelastics](http://imperial.ac.uk/aeroelastics)), a world-leading centre in numerical methods in aeroelasticity and will have the support by an expert team at Airbus UK.

Applications are invited from candidates with (or who are expected to gain) a first-class honours degree or equivalent in Aerospace Engineering. The studentship is available only to candidates who are UK nationals/residents or with (pre)settled status. Further details on eligibility and about the EPSRC case programme can be found [here](http://imperial.ac.uk/). The studentship is for 4 years and will provide full coverage of tuition fees, a generous travel budget, and an annual tax-free stipend of circa £18,000.

To learn more about Imperial College, and to apply for this fully funded PhD position, please go to [www.imperial.ac.uk/study/pg](http://www.imperial.ac.uk/study/pg). Please include a full CV, a short statement of research interests (not a research project) and contact details of two referees in your application. For further inquiries, you can contact Prof Rafael Palacios via email at r.palacios@imperial.ac.uk.

*Imperial College is committed to equality and valuing diversity. We are also an Athena SWAN Silver Award winner, a Stonewall Diversity Champion, a Disability Confident Employer and are working in partnership with GIRES to promote respect for trans people.*