PhD opportunity at Imperial College London.

Lagrangian tracking of plastic particles in coastal areas and evaluation of beaching

We are looking for a highly motivated candidate with a first-class honours degree (or equivalent) in Engineering, Physics, Marine Science or related discipline. Enthusiasm for research, an ability to think and work independently and excellent analytical skills are essential requirements.

**Project description:** While there is a reasonable understanding of how plastic particles would be carried by currents and waves in the open ocean, the way that plastics move from the open ocean onto coastlines or from coastal waters to the ocean is not clear at all. Global Ocean Models do not explicitly resolve the surf zone, so there is no way to seamlessly track a virtual parcel from the open ocean to the beach. This PhD project aims to improve understanding on how much plastic from the potential ocean stock remains in coastal waters and eventually returns to the emerged beach (“beaching”). The PhD project will encompass numerical Coastal hydrodynamics simulations with advanced Lagrangian tracking techniques and laboratory experimentation at the Imperial Hydrodynamics Lab. This project is a collaborative project between Imperial College London (Dr Jose M Alsina) and the University of Utrecht (Dr Erik van Sebille).

**PhD scholarship details:** Full funding is available for UK/EU students for the 3.5 years of PhD study. The funding covers tuition fees (at UK/EU rates) and a maintenance stipend of approximately £16k per year. Paid tutorial/demonstrating work can supplement the stipend. International students (i.e. non-UK/EU) would need to cover the difference between UK/EU and International tuition fees themselves.

**PhD supervisors:**

- Dr Jose M Alsina (Imperial College)
- Dr Erik van Sebille (Utrecht University)

**Application:** Interested candidate, please send your CV, a cover letter, transcript of academic track records and the name of two potential referees to Dr Jose M Alsina (j.alsina@imperial.ac.uk).

**Closing date:** 3rd June 2017

**Start date:** October-November/2017.