

DOCC: 15 PhD positions on modelling and simulation

in the interdisciplinary MSCA doctoral training programme "Dynamics of Complex Continua"
at University of Innsbruck, Austria

Located in the heart of the Alps, the University of Innsbruck is the largest research and education institution in western Austria and provides an inspiring multidisciplinary atmosphere and excellent facilities for research and learning in a spectacular environment.

The Marie Skłodowska-Curie doctoral programme DOCC (Dynamics of Complex Continua) offers 15 PhD positions for highly qualified early-stage researchers who wish to obtain a doctoral degree in modelling and simulation of complex dynamical continuum systems in one of the fields of **atmospheric science**, **civil engineering sciences**, **mathematics**, **computer science**, **physics**, or **chemistry**.

DOCC provides structured training in both research-relevant and professional skills by building expertise in the intersectorally seminal fields of computational material, fluid and gas dynamics, which procures multiple topical technological, societal and medical applications relevant to climate, energy, safety, or nano and life sciences. DOCC prepares Europe's next top modellers to link simulations and the real world within a multi-disciplinary environment, by providing beyond essential technical expertise also the training in key abilities to communicate and transfer methods and results. The complete programme is offered in English.

In our research focus on **Dynamics of Complex Continua** we develop and apply methods for theoretical and numerical analysis in modelling and simulation of dynamical processes, such as stability, nonlinearity, transport and structure formation. In particular we consider many-body and continuum systems of molecular, solid and soft matter, liquids, gases and plasmas, that are characterised by complex couplings between its constituents, its environment, or multi-scale dependence.

DOCC and the University of Innsbruck offer an excellent research environment and high-level training, which benefits from a team of group leaders from ten departments contributing to teaching, co-supervision and international networking. DOCC fellows work in a stimulating international and interdisciplinary research environment, with an individual mentoring programme that will provide an excellent basis for a future career in academia or industry. Information on all participating groups, potential supervisors and descriptions of the suggested research topics are provided at DOCC.eu.

Applicants can also propose and discuss possible own research topics with the specific group leaders. The requested research group(s) or topic(s) should be indicated in the application. Participating fields and research groups: atmospheric science; astrophysics; astro-particle physics; biomolecular chemistry; civil engineering; engineering science; numerical mathematics; medical computing; nanophysics; biophysics; material chemistry; material science; structural engineering.

The PhD research work should preferably start between December 2019 and February 2020, or as soon as possible after. We offer an employment contract for 3 years, with an annual gross salary of 40'103 EUR (susceptible to taxes) for 40 hour/week employment. All PhD fellows will be liable to full medical and social contributions according to the Austrian federal legislation, implying a retirement scheme and (partly paid) parental leave. **Deadline for applications (first call): 10th September 2019.**

More information on the programme and suggested thesis topics, requirements and eligibility criteria, and the application and recruiting process are available on the website DOCC.eu



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