1 PhD position:

In the framework of the new SBO project “MoCCHa-CT” (<https://www.ugent.be/we/ugct/en/research/moccha-ct>) we have an open position for an enthusiastic PhD student within the Pore-scale Processes in Geomaterials Research group (PProGRess-UGent), member of the UGent expertise Centre for X-ray Tomography ([www.ugct.ugent.be](http://www.ugct.ugent.be)).

The key challenges for this PhD student will be to characterize different heterogeneous building materials (e.g. brick) with attention towards multi-scale characterization of pore geometries using high-resolution imaging complemented by tunable dark-field imaging. This information will be integrated in a multi-scale pore network model (PNM). Dynamic models will be experimentally validated by in situ-visualization of micro-scale processes with the focus on fluid flow, salt crystallization and micro-fracture initiation in mineral building materials. To quantify the correlation between the model and the experiment, DVC algorithms will be used. Where necessary, synchrotron experiments will be performed for those dynamic experiments where the temporal resolution in lab is not high enough.

We offer an employment contract of 2 years with the possibility for an extension of 2 additional years, starting preferably September-October 2018, depending on the availability of the successful candidate. More info on living in Ghent can be found on: <https://www.ugent.be/en/facilities>

The FWO-SBO project "MoCCHa-CT: Model-coupled 4D-µCT for advanced material characterization” is a tight collaboration between several academic partners at UGent and the Institute for Biomedical Engineering, ETH, Switzerland, and has an economic finality supported by several industrial partners.

Applicants should have:
- a master’s degree (or equivalent) in Geology, (Bio)engineering, Physics or equivalent, with a high interest in experimental research (mainly lab and imaging techniques)
- an independent and well-organized working style, demanding high quality of your own work.
- well-developed social skills directed towards working in an interdisciplinary team, excellent interpersonal and communicative skills.
- strong motivation to succeed in scientific research, excellent presentation and scientific writing skills
- very good to excellent English language skills (verbally and written).

How to apply

Applications must contain the following documents in English: a personal (motivation) letter and curriculum vitae (a proof of English language skills is always an added value).
The documents should be sent to Veerle.Cnudde@UGent.be, using as subject of your mail: MoCCHa-CT\_PhD\_your name before the 10th of July, 2018.