

IMAGE

X-ray imaging



The Chair was created in September 2013 with the aim to investigate multiphase flow in porous media.

This fundamental topic underlies both civil engineering applications like durability of construction materials as well as typical geosciences applications like the behaviour of bio-methane in underground aquifers or the responsible production of oil and gas.

To tackle such transdisciplinary challenges, a state-of-the-art X-ray imaging lab was created, the DMEX Centre for X-ray Imaging (UMS 3360), which is ISO 9001-certified since 2017. Data analysis relies heavily on a collaboration with the Laboratory of Mathematics (UMR 5142 LMAP), which specializes in the development of algorithms for computing flows in complex geometry on moderate computational resources.

Thematically, the Chair maintains close relations with the Laboratory of Thermodynamics and Energetics of Complex Fluids (UMR 5150 LFCR) and the energy company Totalenergies.



Besides being the holder of the X-ray imaging Chair, Peter directs the ISOcertified DMEX Centre for X-ray Imaging (UMS 3360) which provides researchers with an easy access to state-of-the-art X-ray imaging tools. Peter studied Civil Engineering at the Catholic University of Leuven (Belgium), earned a dual Ph.D. degree, issued by both the Catholic University of Leuven and Delft University of Technology (The Netherlands), did a postdoc at ETH Zürich (Switzerland), and became research scientist at Empa Dübendorf (Switzerland) and lecturer at ETH Zürich. Since June 2014 he is appointed as full professor at UPPA.

