

Research & Services

Innovation for Reservoirs & Mines

Structural Geology at KIT

OUR PROFILE

The Chair of Structural Geology performs applied research on deforming reservoirs, diagenesis and geomagnetics.

We predict porous and fractured rock qualities and 3D heterogeneities of rock bodies, and design digital rocks in interdisciplinary teams.

Economic analyses and management options assess the utilization of reservoirs and geo-storage of renewable energy.

Our innovation improves exploration and production of geothermal fluids, hydrocarbons and raw materials.

Deformation

Mechanical stratigraphy; deformation bands; 3D fracture models; digital outcrops using LiDAR- and UAV

Diagenesis

Rock composition and -qualities; rock and fault alteration; fluid flow and cementation using digital rocks

Geomagnetics

AMS deformation fabric; magnetic correlations

Reservoir Geology

3D geological models; reservoir characterization; reservoir quality prediction modeling; mineral distribution and flow anisotropies in sedimentary bodies

New Tools

Contact-free fracture and mineralogy detection; digital rock models

FACILITIES

Our analytical facilities cover devices for rock magnetism, rock mechanics, rock preparation, space-resolved mineralogy and devices for field studies.

Petrophysics facilities include porosity-permeability analyses and spectral gamma ray.

Our numerical tools cover subsurface modeling (Eclipse, Petrel), Fracture modeling (FracFlow, FracMan), Rock quality prediction (TouchStone) and well logging (Well-Cad).

KIT

KIT is one of the oldest Universities of Technology in Europe with Applied Geosciences as an integral part from its beginning in 1825. Energy, Mobility and Information, as well as Climate & Environment are central research topics of KIT.

KIT's excellent research- and educational environment addresses all aspects in engineering, IT and natural sciences. KIT's Applied Geosciences were ranked #1 in Germany in US News 2018.

ACTIVITIES

We are a member of the State's Think Tank Industrial Resources Strategies established at KIT.

We initiated and support KIT's student's SPE chapter to better liaise with industry.

<https://spe.hsg.kit.edu>

We initiated and support the National Association Raw Materials.org!

<http://www.rohstoffwissen.org/>



CONTACT

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