

## **Prediction of transport properties from synthetic computer tomography of reconstructed porous media**

A multiscale carbonate rock is reconstructed using a continuum geometrical modeling technique. The method combines crystallite information from various sources to produce a rock sample that matches the porosity, structural correlation and percolation probability of the experimental micro-CT image at a specific resolution. It is observed that synthetic micro-CT images of the reconstructed model can then be used to ascertain physical transport parameters at higher resolutions at which micro-CT images are not available.