



## Porosity variability in chalk and the scale of variations

Frykman, Peter; Christensen, Anders Nymark

*Publication date:*  
2017

*Document Version*  
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

*Citation (APA):*  
Frykman, P., & Christensen, A. N. (2017). *Porosity variability in chalk and the scale of variations*. Abstract from Danish Hydrocarbon Research and Technology Centre Technology Conference 2017, Lyngby, Denmark.

---

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

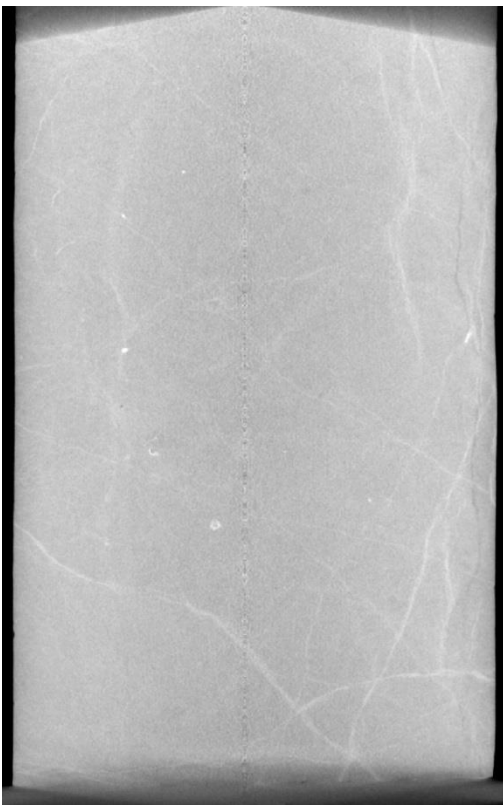
If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

# Danish Hydrocarbon Research and Technology Centre Technology Conference 2017

## Porosity variability in chalk and the scale of variations

*Peter Frykman (GEUS), Anders Nymark Christensen (DTU-Compute)*

The project has applied novel techniques to image and analyse porosity variations of sub-mm to dm scale in chalk material of decimetre dimensions. The advanced high energy CT-scanning applied for high-resolution imaging of chalk rock requires development of a scanning and reconstruction procedure to account for artefacts, calibration, and treatment of positioning requirements. The first scanning attempts with the advanced equipment reveal important internal heterogeneity features such as very thin fractures, healed-hairline fracture sets, trace-fossils and mineralisations, some of which cannot be detected on the core surface. The application on high-porosity outcrop chalk allows absolute quantification of porosity by exploiting difference-images (saturated and unsaturated) in order to display the porosity variations at very high resolution.



Core 12 cm diameter showing healed hairline fracture network