

## JAN TVERANGER

### Curriculum vitae and track record

#### PERSONAL INFORMATION\*

- Family name, First name: Tveranger, Jan
- Date of birth: 25.04.1965
- Sex: M
- Nationality: Norwegian

Researcher unique identifiers: ORCID: 0000-0003-3645-7996, Scopus ID: 6603381694

URL for personal web site: <https://www.norceresearch.no/personer/jan-tveranger>.

[https://www.researchgate.net/profile/Jan\\_Tveranger](https://www.researchgate.net/profile/Jan_Tveranger)

#### KEY QUALIFICATIONS\*

Geology, reservoir characterization, geo-modelling, sedimentology, structural geology, field geology, Quaternary geology, geomorphology, karst & paleokarst, research team management, project leadership, teaching and student supervision.

#### EDUCATION\*

1995	Dr. Scient.: <b>Disputation date: 27.03,1995.</b> Department of Earth Science, University of Bergen, Norway
1991	Master, Geology: 15.12, 1991 Department of Earth Science, University of Bergen, Norway
1987	Høgskulekandidat, Natural Resource management, Sogn og Fjordane Distriktshøgskule, Sogndal, Norway

#### CURRENT AND PREVIOUS POSITIONS\*

2018-present	Senior Researcher NORCE Norwegian Research Centre AS, Bergen, Norway
2017-2018	Senior Researcher Uni Research, Centre for Integrated Petroleum Research (CIPR), Bergen, Norway
2008-2017	Research Leader, geoscience Uni Research, Centre for Integrated Petroleum Research (CIPR), Norwegian Centre of Excellence (2003-2013) Bergen, Norway
2014-2017	Adj. Professor, Geomodelling. Temporary industry-funded position Department of Earth Science, University of Bergen, Norway
2003-2008	Senior Researcher Uni Research, Centre for Integrated Petroleum Research (CIPR), Norwegian CoE (2003-2013), Bergen, Norway
2000-2003	Reservoir geologist & researcher Norsk Hydro, Bergen, Norway
1998-2000	Reservoir geologist Saga Petroleum, Oslo, Norway

#### FELLOWSHIPS AND AWARDS (if applicable)

1995-1997	NRC Post Doc fellowship. Dept. of Earth Science, Univ. of Bergen, Norway
1992-1995	NRC PhD grant. Dept. of Earth Science, Univ. of Bergen
1990	NORPLUS Nordic student exchange grant

**MOBILITY** (*research stays abroad lasting more than three months*)

1995-1996      Faculteit der Aardwetenschappen, Vrije Universiteit, Amsterdam, The Netherlands  
 1990              Dept. of Geology, University of Copenhagen, Denmark

**SUPERVISION OF GRADUATE STUDENTS AND RESEARCH FELLOWS**

2006-present    4 Postdocs, 7 PhD, 20 Masters; Department of Earth Science, University of Bergen, Norway

**TEACHING ACTIVITIES**

2008-Present    Lecturer & field instructor: Rift Basin Reservoirs, AG336. University Centre in Svalbard, Longyearbyen, Norway.

2014-2021      Lecturer: Applied reservoir modelling, Geov366. Department of Earth Science, University of Bergen, Norway.

2013-Present    Lecturer and field instructor: Sedimentology, Geov107. Department of Earth Science, University of Bergen, Norway.

2015-2017      Lecturer: Advanced petroleum geology, Geov364. Department of Earth Science, University of Bergen, Norway.

2011-2014      Lecturer: Geological constraints of CO<sub>2</sub> sequestration. AG341. University Centre in Svalbard, Norway.

2003              Lecturer: Introduction to petroleum technology, PETEK100. Faculty of Mathematics and Natural Science, University of Bergen, Norway.

1993-1997      Field instructor: Quaternary geology, G106. Department of Earth Science, University of Bergen, Norway.

**ORGANISATION OF SCIENTIFIC MEETINGS (conferences only)**

2011              Committee member. Norwegian Geological Society, Winter Conference. Stavanger, Norway. 350+ participants

2011              Chairman, International Workshop on impact of realistic geological models on simulation of CO<sub>2</sub> storage. Bergen, Norway. 50+ participants

2003              Chairman, 4<sup>th</sup> Norwegian Heterogeneity Conference. Bergen, Norway. 60+ participants.

**INSTITUTIONAL RESPONSIBILITIES**

2008-2017      Research leader, Geoscience. Centre for Integrated Petroleum Research

2016-2018      Member of strategic initiative planning group, ThinkBig, Uni Research.

2006-2016      Academic board, Centre for Integrated Petroleum Research, Norwegian Centre of Excellence; from 2013 Uni Research CIPR, Bergen Norway

**COMMISSIONS OF TRUST**

2015-Present    Research proposal review panel, NERC, UK

2004- Present    Peer reviewer: Marine and Petroleum Geology, Petroleum Science and Engineering, Journal of Structural Geology, Petroleum Geosciences, Mathematical Geosciences, International Journal of Greenhouse Gas Control, Water Resources Research, Norwegian Petroleum Directorate Bulletin, Geofluids, Geosciences (Switzerland), GEUS Bulletin

2011-Present    Appointed censor for Master theses at NTNU, UiB and UiS. Opponent for PhD dissertations at UiS

**MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

2011-Present Association of American Petroleum Geologists, AAPG  
 2007-Present European Association of Geoscientists and Engineers, EAGE  
 1988-Present Norwegian Geological Society

#### MAJOR COLLABORATIONS (last 15 years)

-Petter Abrahamsen, Per Røe, Arne Skorstad, Anne Randi Syversveen. Fault modelling methods, **Norwegian Computing Center**, Norway.  
 -Roy Gabrielsen, Alvar Braathen, Structural geology, Department of Earth Science, **University of Oslo, Norway**.  
 -Ivar Midtkandal, mapping of CO<sub>2</sub> leakage from exhumed paleoreservoirs, Department of Earth Science, **University of Oslo**, Norway.  
 -Snorre Olaussen, Kim Senger, Longyearbyen CO<sub>2</sub> laboratory, **University Centre in Svalbard**, Norway.  
 -Jan Martin Nordbotten, Impact of geological parameters on CO<sub>2</sub> sequestration, Department Of Mathematics, **University of Bergen**, Norway.  
 -Vladimir Cheverda, Dmitriy Kolyukhin. Seismic characterization of fault zones, Trofimuk Institute of Reservoir Geology and Geophysics, Siberian Branch of **Russian Academy of Sciences**, Novosibirsk, Russia.  
 -Inga Berre, Geothermal energy research, Department Of Mathematics, **University of Bergen**, Norway  
 -Rolf Birger Pedersen, Sub-sea gas-seeps, **Centre for Geobiology, University of Bergen**, Norway  
 Kei Ogata, Structural geology, Department of Physics and Earth Science, **Vrije Universiteit**, the Netherlands.  
 -Isabelle, Lecomte, Stein-Erik Lauritzen. Characterization of paleokarst reservoirs, Dept. of Earth Science, **University of Bergen**.  
 -Charlotte Botter, Nestor Cardozo, seismic characterization of fault zones. **University of Stavanger**

#### TRACK RECORD

The total number of publications: 177. Citations 1520 (see Researchgate.net for full record). Papers listed below are selected works since 2009. h-index = 24, h-index excluding self-citations = 21

Schueller, S., Braathen, A., Fossen, H. and Tveranger, J. 2013: Spatial distribution of deformation bands in damage zones of extensional faults in porous sandstones: Statistical analysis of field data. Journal of Structural Geology 52, 148-162. **93 Citations**.

Senger, K., Tveranger, J., Ogata, K., Braathen, A. and Planke, S. 2014: Late Mesozoic magmatism on Svalbard: a review. Earth Science Reviews 139, 123-144. **85 Citations**.

Braathen A., Tveranger J., Fossen H., Skar T., Cardozo N., Semshaug S.E., Bastesen E., Sverdrup E. 2009: Fault facies and its application to sandstone reservoirs. AAPG Bulletin 93, 891-917. **104 Citations**.

Fachri, M., Rotevatn, A. and Tveranger, J. 2013: Fluid flow in relay zones revisited: towards an improved representation of small-scale structural Heterogeneities in flow models. Marine and Petroleum Geology 46, 144-164. **36 Citations**.

Qu, D and Tveranger, J. 2016: Incorporation of deformation band fault damage zones in reservoir models. AAPG Bulletin 100, 423-443. **29 Citations**.

Qu, D., Røe, P. and Tveranger, J. 2015: A method for generating volumetric fault zone grids for pillar gridded reservoir models. Computers and Geosciences 81, 28-37. **26 Citations**.

Braathen, A., Bælum, K., Christensen, H., Dahle, T., Eiken, O., Elvebakk, H., Hanssen, T.H., Jochmann, M., Lie, T., Johansen, T.A., Johnsen, H., Larsen, L., Mertes, J., Mørk, A., Mørk, M.B., Nemec, W., Olaussen, S., Oye, V., Røed, K., Titlestad, G.O., Tveranger, J. and Vagle, K. 2012: The Longyearbyen CO<sub>2</sub> lab of Svalbard, Norway - initial assessment of the geological conditions for CO<sub>2</sub> sequestration. Norsk Geologisk Tidsskrift, 92(4), 353-376. **91 Citations.**

Nilsen, H.M., Syversveen, A.R., Lie, K.A., Tveranger, J. and Nordbotten, J.M. 2012: Impact of top-surface morphology on CO<sub>2</sub> storage capacity. International Journal of Greenhouse Gas Control, 11, pp. 221-235. **28 Citations.**

Ogata, K., Senger, K., Braathen, A. and Tveranger, J. 2014: Fracture corridors as seal-bypass systems in siliciclastic reservoir-cap rock successions: field-based insights from the Jurassic Entrada Formation (SE Utah, USA). Journal of Structural Geology 66, pp. 162-187. **75 Citations**

Lønøy, B., Tveranger, J., Pennos, C., Whitaker, F., Lauritzen, S.-E. 2020: Geocellular rendering of cave surveys in paleokarst reservoir models. Marine and Petroleum Geology 122, 104652. **2 Citations.**

#### **Invited speaker at peer-reviewed international conferences and/or advanced schools:**

-Invited lecture: *Structural geological aspects of IOR*. NGF winter meeting Farouk IOR seminar, Stavanger 11-13 January 2011.

-Key note: *Characterization of fault zones: constraints and challenges to description and modelling*. Second Russian - French Workshop on computational Geophysics, Berdsk, Russia, September 22-25, 2014.

-Key note: A genetic approach for characterizing paleokarst reservoirs. NGF Winter meeting, Bergen 7-9 January 2019.

-Invited lecture: *Facies modelling in paleokarst reservoirs; constraints and feasibility*. EAGE Annual conference, October 18-22. 2021.

#### **RESEARCH EXPEDITIONS**

-Jameson Land, East Greenland July-September 1990, 1992

-Pechora, Arctic Russia, July-September 1993, 1994, 1995, 1996, 1997

-Corinth, Greece, June 2004, Nov. 2007

-Somerset, UK, Sept 2004, 2005, 2008

-Sinai, Egypt, No. 2004, Feb. & Nov. 2005, Nov. 2006

-Corsica, France, Feb. & Nov. 2006

-Skye & Raasey, UK, Aug. 2006

-Atacama, Chile, Aug.-Sept. 2007

-Franklin Mountains, Tx. USA, Feb. 2008

-Bighorn Basin, Montana & Wyoming, USA, Nov. 2008

-Dorset, UK, Sept 2008

-Svalbard, Aug. 2008, Aug 2009, Aug. 2010, Aug. 2011

-Karoo, South Africa, Mar. 2012

-Baza, Spain, Oct.- Nov. 2016

-Utah, USA, May, 2007, 2008, Oct. -Nov. 2010, Sept. 2015, May. 2017

-Macedonia, Greece, Apr. 2019