

CV - Jens Christian Refsgaard, GEUS



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Name Jens Christian Refsgaard
Date of Birth June 28, 1951
Nationality Danish
Education Technical University of Denmark, 1976, M.Sc. in Hydrology
University of Copenhagen, 2007, Dr. Scient (Doctor of Natural Science)

Employment Record

Year	Organisation	Position and Responsibilities
2000-date	Geological Survey of Denmark and Greenland (GEUS)	Research Professor, Department of Hydrology
1980-2000	Danish Hydraulic Institute, Hørsholm (part time 1980-84)	Head of Research and Development, 1997-99 Chief Hydrologist, Water Resources Division, 1984-96 Hydrologist, Water Resources Department, 1980-84.
1976-1984	Technical University of Denmark (part time 1980-84)	Associate Professor, 1982-84 Assistant Professor, 1978-82 Research Assistant, 1976-77.

Selected Experience Record – Research and Developmental Projects

Co-ordinator of 'Nitrate reduction in geologically heterogeneous catchments (NICA)', funded by the Danish Strategic Research Council (2010-2013)

Principal investigator on hydrological aspects in a Danish climate research centre, Centre for Regional Change in the Earth System (CRES) funded by the Danish Strategic Research Council (2009-2014).

Co-ordinator of 'Hydrological Modelling for Assessing Climate Change Impacts at different Scales (HYACINTS)', funded by the Danish Strategic Research Council (2008-2012).

Deputy centre leader of 'HOBE – a Hydrological Observatory and Experimentarium', a project with fundamental research on hydrological processes and water balance at catchment scale applying innovative measurement techniques (2007-2012)

Co-ordinator of EU-FP5 research project 'Harmonised Techniques and Representative River Basin Data for Assessment and Use of Uncertainty Information in Integrated Water Management (HarmoniRiB)' (2002-2006)

Co-ordinator of EU-FP4 research. Assessment of 'cumulative' uncertainty in spatial decision support systems. Application to examine the contamination of ground water from diffuse sources (1996-1998).

Comprehensive experience from work on consultancy, capacity building and research projects in several countries in Asia and Africa.

Recent professional assignments

Member of Scientific and Technological Board, EU Joint Programme Initiative – Water (2011-date)

Evaluator of research quality at Department of Earth Science, Uppsala University (2007, 2011)

Evaluator of research proposals and projects under EUs Framework Programmes (1999, 2007, 2010)

Evaluator of Norwegian Climate Research Programme, NORKLIMA (2009)

Government research panel on climate change adaptation. Member (2008-date)

Danish Academy of Technical Science (ATV) (2005-date). Member.

Danish Research School for Water Resources, FIVA (2002-date): Member of governing board.

Regular referee for several journals including Water Resources Research and Journal of Hydrology

Invited speaker and Convenor at numerous national and international conferences

Scientific publications – selected references

Published 69 journal papers in ISI registered international scientific journals with 1450 ISI citations (h-index = 19). Additionally, published more than 60 peer reviewed conference papers and book chapters with more than 450 ISI citations.

International journals – most recent references

- Refsgaard JC, Christensen S, Sonnenborg TO, Seifert D, Højberg AL, Trolborg L (2011) Review of strategies for handling geological uncertainty in groundwater flow and transport modelling. *Advances in Water Resources*. <http://dx.doi.org/10.1016/j.advwatres.2011.04.006>
- Stisen S, Sonnenborg TO, Højberg AL, Trolborg L, Refsgaard JC (2011) Evaluation of climate input biases and water balance issues using a coupled surface-subsurface model. *Vadose Zone Journal*, 10, 37-53.
- van der Keur P, Brugnach M, DeWulf A, Refsgaard JC, Zorilla P, Poolman M, Henriksen HJ, Warmink JJ; Isendahl M, Raadgever GT, Lamers M, Mysiak J (2010) Identifying uncertainty guidelines for supporting policy making in water management illustrated for Upper Guadiana and Rhine sub-basins. *Water Resources Management*, 24(14), 3901-3938.
- van Roosmalen L, Christensen JH, Butts M, Jensen KH, Refsgaard JC (2010) Quantifying climate change signals for Denmark and assessing the robustness for hydrological impact studies. *Journal of Hydrology*, 380, 406-419.
- Refsgaard, JC, Hansen JR (2010) A good looking catchment can turn into a modellers nightmare. *Hydrological Sciences Journal*, 55(6), 899-912.
- Refsgaard JC, Storm B, Clausen T (2010) Système Hydrologique Européen (SHE) – Review and perspectives after 30 years development in distributed physically-based hydrological modelling. *Hydrology Research*, 41.5, 355-377.
- Refsgaard JC, Højberg AL, Møller I, Hansen M, Søndergaard V (2010) Groundwater modelling in integrated water resources management – visions for 2020. *Ground Water*, 48(5), 633-648.
- Henriksen HJ, Refsgaard JC, Højberg AL, Ferrand N, Gijsbers P, Scholten H (2009) Harmonised principles for public participation in quality assurance of integrated water resources modelling. *Water Resources Management*, 23, 2539-2554.
- Hansen JR, Refsgaard JC, Ernstsen V, Hansen S, Styczen M, Poulsen RN (2009) An integrated and physically based nitrogen cycle catchment model. *Hydrology Research*, 40.4, 347-363
- Rosenbom AE, Therrien R, Refsgaard JC, Jensen KH, Ernstsen V, Klint KES (2009) Numerical Analysis of Water and Solute Transport in Variably Saturated Fractured Clayey Till. *Journal of Contaminant Hydrology*, 104 (1-4), 137-152
- Trolborg L, Jensen KH, Engesgaard P, Refsgaard JC, Hinsby K (2008) Using Environmental Tracers in Modeling Flow in a Complex Shallow Aquifer System. *Journal of Hydrologic Engineering*, 13(11), 1037-1048.
- Larsen F, Pham NQ, Dang ND, Postma D, Jessen S, Pham VH, Nguyen TB, Trieu HD, Tran LT, Nguyen H, Chambon J, Nguyen HV, Ha DH, Hue NT, Duc MT, Refsgaard JC (2008) Controlling geological and hydrogeological processes in an arsenic contaminated aquifer on the Red River flood plain, Vietnam. *Applied Geochemistry*, 23, 3099-3115.
- Hansen JR, Ernstsen V, Refsgaard JC, Hansen S (2008) Field scale heterogeneity of redox conditions in till - upscaling to a catchment nitrate model. *Hydrogeology Journal*, 16, 1251-1266.
- Rosenbom AE, Ernstsen V, Flüher H, Jensen KH, Refsgaard JC, Wydler H (2008) Fluorescence Imaging Applied to Tracer Distributions in Variably Saturated Fractured Clayey Till. *Journal of Environmental Quality*, 37, 448-458.
- van der Keur P, Henriksen, HJ, Refsgaard JC, Brugnach M, Pahl-Wostl C, DeWulf A, Buiteveld H (2008) Identification of major sources of uncertainty in current IWRM practice. Illustrated for the Rhine basin. *Water Resources Management*.
- Henriksen HJ, Trolborg L, Højberg AL, Refsgaard JC (2008) Assessment of exploitable groundwater resources of Denmark by use of ensemble resource indicators and numerical groundwater-surface water model. *Journal of Hydrology*, 348(1-2). 224-240.
- Jørgensen LF, Refsgaard JC, Højberg AL (2007) Joint use of monitoring and modelling. *Water Science and Technology*, 56(8) 21-29.
- Dahl M, Nilsson B, Langhoff JH, Refsgaard JC AL (2007) Review of classification systems and new multi-scale typology of Groundwater – Surface water Interaction. *Journal of Hydrology*, 344(1/2), 1-16.
- Hansen JR, Refsgaard JC, Hansen S, Ernstsen V (2007) Problems with heterogeneity in physically based agricultural catchment models. *Journal of Hydrology*, 342 (1-2), 1-16.