

# **Curriculum Vitae**

Name: Dr. Hartmut Michael Holländer, P.Eng.  
Associate Professor  
Groundwater Engineering

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## **Qualification:**

- May 2005 Doctorate in Engineering, Leibniz University (LU) Hanover, Germany  
Dissertation: "Aspects of groundwater management to improve the agricultural production in coastal sub humid areas"
- June 2000 Diplom-Ingenieur (equivalency M.Sc. Civil Engineering, five year program)  
at Leibniz University  
Water Resources (Specializations: Surface and Groundwater Quality,  
Computer Science in Civil Engineering)

## **Work Experience:**

- 10/2010 – 12/2012 Authorized expert for the exploitation mine Gorleben, Germany
- 07/2010 – 12/2012 Authorized expert for the nuclear waste repository Asse II, Germany
- 01/2010 – 12/2012 Research Scientist, Geo-scientific Task Group: Final Disposal of Nuclear Waste, State Authority of Mining, Energy and Geology, (Landesamt für Bergbau, Energie und Geologie, LBEG) Hanover, Germany

## **Academic Experience:**

- 07/2015 – present Associate Professor, Groundwater Engineering, Department of Civil Engineering, University of Manitoba
- 04/2013 – 06/2015 Adjunct Professor, Department of Civil Engineering, University of Manitoba
- 01/2013 – 06/2015 Research Associate, Department of Civil Engineering, University of Manitoba
- 01/2011 – 12/2012 Lecturer, Department of Continuing Education in Civil Engineering, Leibniz University
- 01/2010 – 12/2012 Lecturer, Institute of Hydrology and Water Resources Management, Brandenburg University of Technology (BTU) Cottbus, Germany

02/2008 – 12/2009	Research Associate, Institute of Hydrology and Water Resources Management, Brandenburg University of Technology
10/2006 – 01/2008	Postdoctoral Fellow, Groundwater Modeling, Commonwealth Scientific and Industrial Research Organisation (CSIRO) – Land and Water, Adelaide, Australia
06/2005 – 09/2006	Research Scientist, Institute of Water Resources Management, Hydrology and Agricultural Hydraulic Engineering, Leibniz University
09/2003 – 05/2005	Ph.D. scholar
07/2000 – 09/2003	Lecturer and Research Scientist, Institute of Water Resources Management, Hydrology and Agricultural Hydraulic Engineering, Leibniz University
08/1996 – 04/1999	Research Assistant at the Institute of Computer Sciences in Civil Engineering, Leibniz University

### **Academic Honors and Awards:**

2004 – 2014	Five travel grants for conferences (two in 2004, 2006, 2013, and 2014)
10/2006 – 01/2008	German Research Foundation (DFG): Postdoctoral Research Scholarship
09/2003 – 05/2005	State of Lower Saxony: Ph.D. Scholarship

### **Editorial Contributions**

- Editor of the book: “In-Situ Remediation of Arsenic-Contaminated Sites”, Bundschuh, J., Holländer, H.M. and Ma, L. (eds.), *Taylor & Francis publishing*, ISBN 978-0-415-62085-7, 208 p., 2014.
- Managing Guest Editor of the special issue “Coupled Physical and Chemical Transformations Affecting the Performance of GeoSystems”, *Physics and Chemistry of the Earth*, 64, 2013.
- Managing Guest Editor of the special issue “Hydrological Earth Observatories and Artificial Catchments”, *Physics and Chemistry of the Earth*, 36(1-4), 2011.

## Publication list

### A. Peer reviewed (16)

- A16. Moore, K., Fayek, M., Lemes, M., Rysgaard, S., and Holländer, H.M. (2017): Fractionation of hydrogen and oxygen in artificial seawater, *Cold Regions Science and Technology*, 142, 93-99, doi: 10.1016/j.coldregions.2017.07.011.
- A15. Jarrahi, M. and Holländer, H.M. (2017): Numerical simulation of flow heterogeneities within a real rough fracture and its transmissivity. *Energy Procedia*, 125, 353-362, doi: 10.1016/j.egypro.2017.08.042.
- A14. Holländer, H.M., Wang, Z., Assefa, K.A., and Woodbury, A.D. (2015): Improved groundwater recharge estimation from portable, low-cost weather stations, *Groundwater*, 54, 243-254, doi: 10.1111/gwat.12346.
- A13. Holländer, H. M., Bormann, H., Blume, T., Buytaert, W., Chirico, G. B., Exbrayat, J.-F., Gustafsson, D., Hölzel, H., Krause, T., Kraft, P., Stoll, S., Blöschl, G., and Flühler, H. (2014): Impact of modellers' decisions on hydrological a priori predictions, *Hydrol. Earth Syst. Sci.*, 18(6), 2065-2085. doi:10.5194/hess-18-2065-2014.
- A12. Stadler, S., Süttenfuß, J., Holländer, H.M., Bohn, A., Jahnke, C., and Suckow, A. (2012): Isotopic and geochemical indicators for groundwater flow and multi-component mixing near disturbed salt anticlines, *Chemical Geology*, 294–295, 226-242, doi: 10.1016/j.chemgeo.2011.12.006.
- A11. Bormann, H., Holländer, H.M., Blume, T., Buytaert, W., Chirico, G.B., Exbrayat, J.-F., Gustafsson, D., Hölzel, H., Kraft, P., Krause, T., Nazemi, A., Stamm, C., Stoll, S., Blöschl, G., and Flühler, H. (2011): Comparative discharge prediction from a small artificial catchment without model calibration: Representation of initial hydrological catchment development, *Die Bodenkultur - Journal of Land Management, Food and Environment*, 62(1-4), 23-29.
- A10. Schaaf, W., Bens, O., Fischer, A., Gerke, H.H., Gerwin, W., Grünwald, U., Holländer, H.M., Kögel-Knabner, I., Mutz, M., Schloter, M., Schulin, R., Veste, M., Winter, S., and Hüttl, R.F. (2011): Patterns and processes of initial terrestrial ecosystem development. *Journal of Plant Nutrition and Soil Science*, 174(2), 229-239, doi: 10.1002/jpln.201000158.
- A9. Raul, S.K., Panda, S.N., Holländer, H.M., and Billib, M. (2011): Integrated water resources management in a major canal command in eastern India. *Hydrological Processes*, 25(16), 2551-2562, doi: 10.1002/hyp.8028.
- A8. Holländer, H.M., Biemelt, D., Raab, T., and Schoenheinz, D. (2011): Hydrological Earth Observatories and Artificial Catchments: From Observation to Modeling. *Physics and Chemistry of the Earth, Parts A/B/C*, 36(1-4), 1-2, doi: 10.1016/j.pce.2010.12.012.
- A7. Holländer, H.M., Blume, T., Bormann, H., Buytaert, W., Chirico, G.B., Exbrayat, J.-F., Gustafsson, D., Hölzel, H., Kraft, P., Stamm, C., Stoll, S., Blöschl, G., and Flühler, H. (2009): Comparative predictions of discharge from an artificial catchment (Chicken Creek) using sparse data. *Hydrol. Earth Syst. Sci.*, 13, 2069–2094, doi: 10.5194/hess-13-2069-2009.
- A6. Holländer, H.M., Mull, R., and Panda, S.N. (2009): A concept for managed aquifer recharge using ASR-wells for sustainable use of groundwater resources in an alluvial

- coastal aquifer in Eastern India. *Physics and Chemistry of the Earth, Parts A/B/C*, 34(4-5), 270-278, doi: 10.1016/j.pce.2008.05.001.
- A5. Raul, S.K., Panda, S.N., Holländer, H.M., and Billib, M. (2008): Sustainability of rice dominated cropping system in the Hirakud canal command, Orissa (India). *Irrigation and Drainage*, 57(1), 93-104, doi: 10.1002/ird.351.
- A4. Krüger, T., Holländer, H.M., Boochs, P.-W., Billib, M., Stummeyer J., and Harazim, B. (2008): In situ remediation of arsenic at a highly contaminated site in Northern Germany. - In: Trefry, M. G. (ed.): Groundwater Quality: Securing groundwater quality in urban and industrial environments. *IAHS-AISH Publ.* 324, 118-125.
- A3. Holländer, H.M., Hinz, I., Boochs, P.W., and Billib, M. (2006): Experiments to determine clogging and redevelopment effects at laboratory scale. International Symposium on Managed Aquifer Recharge (ISMAR5), Berlin, Germany, 11-16 June 2005. *IHP-VI Series on Groundwater*, 13, 611-617.
- A2. Holländer, H.M., Boochs, P.W., Billib, M., and Panda, S.N. (2005): Labor-Säulenversuche zur Untersuchung von Clogging-Effekten im Grundwasserleiter - Einfluss von physikalischen An- und Ablagerungen, Gasblasen und biologischer Aktivität (Laboratory experiments to investigate clogging effects in aquifers – Influence of physical deposition, bubbles and biological activity). *Grundwasser*, 10(4), 205-215, doi: 10.1007/s00767-005-0102-y.
- A1. Nirala, S.K., Panda, S.N., Billib, M., and Holländer, H.M. (2005): Sectoral planning of land and water resources in a large canal command in the sub-humid region of Eastern India. *Journal of Applied Irrigation Science*, 40(1), 115-134.

## B. Books and Book Chapters (6)

- B6. Wang, Z., Assefa, K.A., Woodbury, A.D., and Holländer, H.M. (2016): Groundwater recharge estimation using physical-based modelling. In: Panigrahi, B. and Goyal, M.E. (eds.): *Modeling Methods and Practices in Soil and Water Engineering*, AAP Apple Academic Press, ISBN 978-1-771-88326-9, 3-30.
- B5. Krüger, T., Holländer, H.M., Stummeyer, J., Harazim, B., Boochs, P.-W., and Billib, M. (2014): In-situ immobilization of arsenic in the subsurface on an anthropogenic contaminated site. In: Bundschuh, J., Holländer, H.M. and Ma, L. (eds.): *In-Situ Remediation of Arsenic-Contaminated Sites*, Taylor & Francis publishing, ISBN 978-0-415-62085-7, 145-159.
- B4. Holländer, H.M., Boochs, P.W., Stummeyer, J., Harazim, B., Billib, M., and Krüger, T. (2008): Subsurface treatment of arsenic in groundwater – experiments at laboratory scale. In: Bundschuh, J., Armienta, P., Birkle, P., Bhattacharya, P., Matschullat, J., and Mukherjee, A. B., (eds.): *Natural Arsenic in Groundwater of Latin America*. *Taylor & Francis Ltd.*, 537-545.
- B3. Holländer, H.M. (2005): Aspekte einer Grundwasserbewirtschaftung im Zusammenhang mit einer Erhöhung der Agrarproduktion in küstennahen semihumiden Gebieten (Aspects of groundwater management to improve the agricultural production in coastal sub humid areas). Bulletin of the Institute of Water Resources Management, Hydrology and Agricultural Hydraulic Engineering, *Leibniz University Hanover*, Vol. 90, 255 pages.

- B2. Holländer, H.M. (2004): Technische Umsetzung des FLUWU-Projektes (Technical realization of the FLUWU-project). In: Bulletin of Institute of Water Resources Management, Hydrology and Agricultural Hydraulic Engineering, *Leibniz University Hanover*, Vol. 89, 135-156.
- B1. Mull, R. and Holländer, H.M. (2002): Grundwasserhydraulik und – hydrologie – Eine Einführung (mit CD-ROM) (Groundwater hydraulics and hydrology – A Introduction (with CD-ROM)). Springer, ISBN 3-540-43942-0, 250 pages.

### **C. Patents (1)**

- C1. Holländer, H.M., Boochs, P.-W., Billib, M., and Krüger, T. (in the name of Leibniz University Hanover, 2006): Verfahren und Vorrichtung zur Elimination von Arsen aus Wasser (Method for immobilization of organic and inorganic arsenic compounds in the subsurface). DE 102006028172 A1.

### **D. Selected Reports (15)**

1. Holländer, H.M., Bardenhagen, I., and Neumann, A. (2012): Stellungnahme zum Bericht „Erkundung und Bewertung der Herkunft und Genese der auf der 750-m-Sohle des Endlagers für radioaktive Abfälle Asse auftretenden Salzlösungen und der in ihnen enthaltenden Radionuklide“ (TU Clausthal 2011) (Comment on geochemical report “Origin and genesis of the contaminated brines at the 750-m-floor-level in the nuclear waste repository Asse” by the University of Technology Clausthal). State Ministry of Environment, Lower Saxony, 15 pages.
2. Franke, B., Hofmann, M., Holländer, H.M., and Viola, S. (2012): Sachstandsbericht zum Endlagerprojekt Gorleben (2011) (Status report on the exploitation mine Gorleben – 2011). State Ministry of Environment, Lower Saxony, 14 pages.
3. Holländer, H.M. and Bödecker, S. (2012): Stellungnahme zum Bericht „Bilanzierung der Salzlösungen der Nordflanke im Endlager für radioaktive Abfälle Asse II“ (Ercosplan, Erfurt 2011) (Comment on the report „Balance on the brines at the northern flank of the repository Asse II by Ercosplan, Erfurt“. Mining Authority Lower Saxony (classified)).
4. Franke, B., Hofmann, M., Holländer, H.M., and Viola, S. (2012): Sachstandsbericht zum Endlagerprojekt Gorleben (2010) (Status report on the exploitation mine Gorleben – 2010). State Ministry of Environment, Lower Saxony, 9 pages.
5. Holländer, H.M. und A. Lietzow (2009) - Interner Vermerk zu „Modellierung der Grundwasserbewegung im Deckgebirge der Schachtanlage Asse II“ von der AF-Colenco AG, Bericht 1496/09 (November 2009), S24.
6. Holländer, H.M. and Lietzow, A. (2009): Stellungnahme zum Bericht „ Modellierung der Grundwasserbewegung im Deckgebirge der Schachtanlage Asse II“, (AF-Colenco Ltd., Report No. 1496/09, 2009) Comment on “Groundwater movement at the repository Asse II” by AF-Colenco Ltd., Basel, Switzerland. State Ministry of Environment, Lower Saxony (classified), 24 p.
7. Holländer, H.M. and Lietzow, A. (2010): Stellungnahme zum Bericht „Strömungs- und Transportmodell, Langzeitsicherheit Asse II (Krupp, R., 2009) (Comment on groundwater

- flow and solute transport model, long-term safety of Asse II" by Krupp, R.). State Ministry of Environment, Lower Saxony (classified).
8. Holländer, H.M. (2008): An integrated particle transport and clogging model for polydisperse suspensions and heterogeneous media. Final report of the DFG-research scholarship Ho 3294/3-1, 13 pages.
  9. Page, D., Holländer, H.M., Wakelin, S., Taylor, R., Pavelic, P., Barry, K., Gregg, A., Laube, S., Cierpka, A., Chassagne, A., Mimoso, J., and Dillon, P. (2007). Pre-treatment of Urban Stormwater for Water Reclamation via Aquifers, Final Report of Smart Water Fund Project. CSIRO Water for a Healthy Country Flagship report.
  10. Billib, M., Panda, S.N., Holländer, H.M., and Raul, S.K. (2007): Final report on "Simulation - Optimisation Modeling for Integrated Land and Water Resources Management in the Canal Commands of the Hirakud Irrigation Project, Orissa (India)".
  11. Mull, R. and Holländer, H.M. (2006): Final report on "Water Supply of Tabuk and Coastal Towns and Villages, Saudi Arabia".
  12. Mull, R. and Holländer, H.M. (2004): Final report on "Groundwater use for irrigation, Golf club Hardenberg e.V.".
  13. Holländer, H.M., Rickert, K., and Burmester, M. (2004): Final report on "FLUWU" – an e-learning environment for "Residual Pollution – Rehabilitation and Control" and "Rainwater Management and Urban Drainage Systems".
  14. Mull, R. and Holländer, H.M. (2003): Final report on "Groundwater Flow" – an e-learning environment for groundwater hydraulics and hydrology.
  15. Mull, R., Panda, S.N., Panigrahi, B., and Holländer, H.M. (2002): Final report on "Integrated Rainwater Management of Submerged Paddy in Eastern India (Orissa, India)".

## **E. Non-peer reviewed (6)**

1. Holländer, H. M., Bormann, H., Blume, T., Buytaert, W., Chirico, G. B., Exbrayat, J.-F., Gustafsson, D., Hölzel, H., Krauße, T., Kraft, P., Stoll, S., Blöschl, G., and Flühler, H. (2013): Impact of modellers' decisions on hydrological a priori predictions, *Hydrol. Earth Syst. Sci. Discuss.*, 10(7), 8875-8944, doi:10.5194/hessd-10-8875-2013.
2. Bormann H., Holländer H.M., Blume T., Buytaert W., Chirico G.B., Exbrayat J.-F., Gustafsson D., Hölzel, H., Kraft P., Krauße T., Nazemi A., Stamm C., Stoll S., Blöschl G., and Flühler H. (2011): Modellkonzept vs. Modellierer – wer oder was ist wichtiger? Vergleichende Modellanwendung am Hühnerwasser-Einzugsgebiet. *KW - Korrespondenz Wasserwirtschaft*, 4(9), 487-491, doi: 10.3243/kwe2011.09.001.  
Reprint: Bormann, H., Holländer, H.M., Blume, T., Buytaert, W., Chirico, G.B., Exbrayat, J.-F., Gustafsson, D., Hölzel, H., Kraft, P., Krauße, T., Nazemi, A., Stamm, C., Stoll, S., Blöschl, G. & Flühler, H. (2011): Modellkonzept vs. Modellierer – wer oder was ist wichtiger? Vergleichende Modellanwendung am Hühnerwasser-Einzugsgebiet. In: Blöschl, G. & Merz, R. (Hrsg.): *Hydrologie & Wasserwirtschaft - von der Theorie zur Praxis*. Beiträge zum Tag der Hydrologie am 24./25. März 2011 an der Technischen Universität Wien. Forum für Hydrologie und Wasserbewirtschaftung, 30.10, 152-160.
3. Holländer, H.M., Blume, T., Bormann, H., Buytaert, W., Chirico, G.B., Exbrayat, J.-F., Gustafsson, D., Hölzel, H., Kraft, P., Stamm, C., Stoll, S., Blöschl, G., and Flühler, H.

- (2009): Comparative predictions of discharge from an artificial catchment (Chicken Creek) using sparse data, *Hydrol. Earth Syst. Sci. Discuss.*, 6, 3199-3260, doi:10.5194/hessd-6-3199-2009.
4. Panda, S.N., Sethi, L.N., and Holländer, H.M. (2005): Groundwater management issues in a coastal river basin, Orissa, India. *IWMI-ITP-NIH International Workshop on Creating Synergy between Groundwater Research and Management in South Asia*, Roorkee, India, 20-23.
  5. Holländer, H.M. and Boochs, P.W. (2004): Labortechnische Untersuchungen von Verstopfungsvorgängen in Porengrundwasserleitern. *Bulletin of ATV-DVWK (DWA)*, 05.04(2), 27-31.
  6. Mull, R., Holländer, H.M., Boochs, P.W., and Panda, S.N. (2000): Aspects of water management in paddy fields in Eastern India. *Proceedings of the International Workshop on Rainwater and Groundwater Management for Sustainable Rice Ecosystem*. Kharagpur, India, III, 87-96.

## **F. Invited Presentations (10)**

1. Holländer, H.M. (2017): Contributing to sustainable groundwater management using regional groundwater recharge estimation in Northern Climates, Canadian Geotechnical Society (CGS), 16.01.2017, Winnipeg, MB.
2. Holländer, H.M. (2016): In-situ remediation of an anthropogenic arsenic contamination due to chemical warfare agents, UMWEF, Winnipeg, MB, 25.02.2016.
3. Holländer, H.M. (2015): Implication in a priori and a posteriori numerical modeling. University of North Dakota, Grand Forks, ND, 03.02.2015.
4. Holländer, H.M. (2014): A posteriori and a priori prediction in hydro(geo)logical modelling. XIV Congreso Nacional de Ingeniería y Congreso de los 50 Años de la ERIS, Guatemala City, Guatemala, 28.-31. October 2014.
5. Holländer, H.M. (2014): Groundwater resources and its recharge in Germany. XIV Congreso Nacional de Ingeniería y Congreso de los 50 Años de la ERIS, Guatemala City, Guatemala, 28.-31. October 2014.
6. Holländer, H.M. and Lietzow, A. (2010): Final disposal of nuclear waste in salt formations - Insights into the exploration mine Gorleben. AECL's Underground Research Laboratory, Pinawa, MB.
7. Holländer, H.M., Blume, T., Bormann, H., Buytaert, W., Chirico, G.B., Exbrayat, J.-F., Gustafsson, D., Hözel, H., Kraft, P., Stamm, C., Stoll, S., Blöschl, G., and Flühler, H. (2009): Comparative predictions of discharge from an artificial catchment (Chicken Creek) using sparse data. Department of Soil Science, University of Manitoba, Winnipeg, Canada.
8. Holländer, H.M. (2009): Hydrological aspects of the artificial catchment Chicken Creek. Cyber seminar at CUASHI, Spring 2009 Schedule, <http://www.scivee.tv/node/11392>.
9. Holländer, H.M. (2005): Grundwassermanagement auf verschiedenen Skalen. Universität Wuppertal, 24.10.2005.

10. Holländer, H.M., Mull, R., and Panda, S.N. (2004): Groundwater management in coastal areas with distinct rainy seasons. Proceedings of International Workshop at Agricultural University of Hisar, Haryana, India, 24-30.

## G. Oral Presentations (16)

1. Holländer, H.M., Islam, Md.M., and Šimunek, J. (2017): Water and energy fluxes during freezing and thawing in the unsaturated zone. GeoOttawa 2017, Ottawa, ON, 01.10.-04.10.2017. Proceedings of the 70<sup>th</sup> CGS Conference, paper 643
2. Holländer, H.M., Islam, Md.M., and Šimunek, J. (2017): Laboratory and numerical experiments on water and energy fluxes during freezing and thawing in the unsaturated zone, EGU General Assembly 2017, Vienna, 23.04.-28.04.2017, *Geophysical Research Abstracts*, 19:5536.
3. Holländer, H.M. and Firoozy, N. (2017): Assessment of an enhanced geothermal system targeting the Prairie Evaporite Formation of the Williston Basin in SW Manitoba, EGU General Assembly 2017, Vienna, 23.04.-28.04.2017, *Geophysical Research Abstracts*, 19:5760.
4. Holländer, H.M. and Firoozy, N. (2016): Numerically derived temperature data set of Manitoba's subsurface formations. GeoVancouver, Vancouver, BC, 02.10.-05.10.2016. Firoozy, N. and Holländer, H.M. (2016): Simulation of heat and fluid transfer of an EGS well system for electricity production in the Williston Basin, Proceedings of the 69<sup>th</sup> CGS Conference, paper 3989.
5. Holländer, H.M., Assefa, K.A., Wang, Z., and Woodbury, A.D. (2016): Groundwater recharge estimation using low-cost observation techniques and potential applications, EGU General Assembly 2016, Vienna, Austria, 17.-22.04. 2016, *Geophysical Research Abstracts*, 18: A-09844.
6. Holländer, H.M., Assefa, K.A., Wang, Z., and Woodbury, A.D. (2015): Groundwater recharge estimation from low-cost weather stations. 68<sup>th</sup> National Canadian Water Resources Association Conference (CWRA 2015), Winnipeg, MB, 02.06.-04.06.2015.
7. Holländer, H.M., Assefa, K.A., Wang, Z., and Woodbury, A.D. (2014): Groundwater recharge modeling using low-cost measurement technique. Conference DGG-Section Hydrogeology, Bayreuth, Germany, 28.-31.05.2014
8. Holländer, H.M., Krüger, T., Stummeyer, J., Harazim, B., Boochs, P.-W., and Billib, M. (2013): In-situ remediation of an anthropogenic arsenic contamination due to chemical warfare agents. AquaConSoil 2013, Barcelona, Spain, 16.04.-19.04.2013
9. Holländer, H.M., Blume, T., Bormann, H., Buytaert, W., Chirico, G.B., Exbrayat, J.-F., Gustafsson, D., Hözel, H., Krauße, T., Nazemi, A., Stoll, S., Blöschl, G., and Flühler, H. (2011): Impact of modeller's decisions in catchment modeling. IUGG General Assembly 2011, Melbourne, Australia, 28.06.-07.07.2011.
10. Holländer, H.M., Stadler, S., Hayashi, T., Mottl, M., and the Exp313 Science Party (2011): Modeling of fresh and salt water genesis in the New Jersey shallow shelf. IUGG General Assembly 2011, Melbourne, Australia, 28.06.-07.07.2011.
11. Holländer, H.M., Blume, T., Bormann, H., Buytaert, W., Chirico, G.B., Exbrayat, J.-F., Gustafsson, D., Hözel, H., Kraft, P., Nazemi, A., Stoll, S., Blöschl, G., and Flühler, H.

- (2010): The human factor in catchment modeling: from a priori prediction to calibration. 1<sup>st</sup> International Conference "Structures and Processes of the Initial Ecosystem Development", Cottbus, Germany, 20.-24.09.2010, 54-55.
12. Holländer, H.M. and Dillon, P.J. (2007): A pore-sized based flow model to simulate physical clogging. 6<sup>th</sup> Biennial International Symposium on Managed Aquifer Recharge (ISMAR6), Phoenix, Arizona, USA, 28.10.-02.11.2007.
  13. Holländer, H.M., Mull, R., and Panda, S.N. (2007): Groundwater assessment and management of excess surface water for sustainable use of an alluvial coastal aquifer in eastern India. EGU General Assembly 2007, Vienna, Austria, 15.-20.04. 2007, *Geophysical Research Abstracts*, 9: A-05836.
  14. Holländer, H.M., Boochs, P.W., Stummeyer, J., Harazim, B., Billib, M., and Krüger, T. (2006): Subsurface treatment of arsenic in groundwater – experiments at laboratory scale. International Congress on “Natural Arsenic in Groundwater of Latin America (As-2006)”, Mexico City, Mexico, 20.-24.06.2006.
  15. Holländer, H.M., Bergholz, C., Billib, M., and Panda, S.N. (2004): GIS support for groundwater simulation as a part of an integrated water management tool in irrigation areas. In: Natural Resources Engineering and Management AND Agro-Environmental Engineering. Proc. of Int. Conf. on Emerging Technologies in Agricultural and Food Engineering (etae2004), Kharagpur, India, 358-36.
  16. Holländer, H.M. and Rickert, K. (2003): Instrumente für Lernumgebungen. Workshop „Neue Medien in der Aus- und Weiterbildung von Bauingenieuren und Architekten“, Darmstadt, Germany, 21.-22.10.2003.

## H. Other Conference Presentations (44)

1. Susanto, S. and Holländer H.M. (2017): Development of geothermal energy resources maps for the City of Winnipeg. GeoOttawa 2017, Ottawa, ON, 01.10.-04.10.2017, oral presentation. Proceedings of the 70<sup>th</sup> CGS Conference, paper 743.
2. Moore, K. and Holländer, H.M. (2017): Geochemical modelling of the dissolution of salt minerals and application to geothermal energy. GeoOttawa 2017, Ottawa, ON, 01.10.-04.10.2017, poster presentation. Proceedings of the 70<sup>th</sup> CGS Conference, paper 711.
3. Moore, K. and Holländer, H.M. (accepted): Physically-validated salt mineral dissolution benchmark development. NGWA Conference on Hydrogeophysics and Deep Groundwater, Dallas, CO, 20.03.-21.03.2017, oral presentation.
4. Wang, X., Asadzadeh, M., and Holländer, H.M. (2017): Coupling HYDRUS-1D code with PA-DDS algorithms for inverse calibration. EGU General Assembly 2017, Vienna, 23.04.-28.04.2017, *Geophysical Research Abstracts*, 19:999, poster presentation.
5. Jarrahi, M. and Holländer, H.M. (2017): Numerical simulation based on core analysis of a single fracture in an Enhanced Geothermal System. EGU General Assembly 2017, Vienna, 23.04.-28.04.2017, *Geophysical Research Abstracts*, 19:610, poster presentation.
6. Moore, K. and Holländer, H.M. (2017): Physically-based validation of numerical codes for solute transport involving mineral dissolution. EGU General Assembly 2017, Vienna, 23.04.-28.04.2017, *Geophysical Research Abstracts*, 19:590, oral presentation.

7. Roemer, M., Krüger, T., Wallis, I. and Holländer, H.M. (2017): Numerical modeling of an in-situ immobilization of arsenic in the subsurface using ferrous chloride. 14<sup>th</sup> International Conference on Sustainable Use and Management of Soil, Sediment and Water Resources (AquaConSoil2017), Lyon, France, 26.06.-30.06.2017, Proceedings AquaConSoil2017, 142-152, poster presentation.
8. Singh, N. and Holländer, H.M. (2016): Estimation of hydraulic conductivity of coarse soil using pedotransfer functions. Canadian Young Geotechnical Engineers & Geoscientists Conference (CYGEGC), Whistler, BC, 29.09.-01.10.2016, poster presentation.
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