

Doctoral theses supervised by Rainer Helmig

- 1) Hussam Sheta (1999) Uni Stuttgart: Simulation von Mehrphasenvorgängen in porösen Medien unter Einbeziehung von Hysterese-Effekten (23.06.1999)
- 2) Ralf Huber (1999) TU Braunschweig: Immiscible and compositional multiphase flow and transport in heterogenous porous media: simulation, formulation and numerical simulation
- 3) Christopherus Braun (2000) Uni Stuttgart: Ein Upscaling-Verfahren für Mehrphasenströmungen in porösen Medien (23.02.2000)
- 4) Holger Class (2000) TU Braunschweig: Theorie und numerische Modellierung nichtisothermer Mehrphasenprozesse in NAPL-kontaminierten porösen Medien (9.10.2000)
- 5) Stefan Lang (2001) Uni Stuttgart: Parallele numerische Simulation instationärer Probleme mit adaptiven Methoden auf unstrukturierten Gittern (20.07.2001)
- 6) Annette Silberhorn-Hemminger (2002) Uni Stuttgart: Modellierung von Kluftaquifersystemen: Geostatistische Analyse und deterministisch-stochastische Kluftgenerierung (22.02.2002)
- 7) Lina Neunhäuserer (2003) Uni Stuttgart: Diskretisierungsansätze zur Modellierung von Strömungs- und Transportprozessen in geklüftet-porösen Medien (10.02.2003)
- 8) Maren Paul (2003) Uni Stuttgart: Simulation of two-phase flow in heterogeneous porous media with adaptive methods (28.02.2003)
- 9) Hartmut Jakobs (2003) Uni Stuttgart: Simulation nicht-isothermer Gas-Wasser-Prozesse in komplexen Kluft-Matrix-Systemen (05.12.2003)
- 10) Kenichiro Kobayashi (2004) Uni Stuttgart: Optimization methods for multi-phase systems in the subsurface. Application to methane migration in coal-mining areas (09.07.2004)
- 11) Surabhin Chackiath Jose (2004) Uni Stuttgart: Experimental investigations on longitudinal dispersive mixing in heterogeneous aquifers (20.10.2004)
- 12) Mia Süß (2004) Uni Stuttgart: Analysis of the influence of structures and boundaries on flow and transport processes in fractured porous media (10.12.2004)
- 13) Asie Kemal Jaber (2004) Uni Stuttgart: Finite volume models for multiphase multicomponent flow through porous media (13.12.2004)
- 14) Mohammed Arifur Rahman (2004) Uni Stuttgart: Experimental investigations on transverse dispersive mixing in heterogeneous porous media (20.12.2004)
- 15) Thomas Breiting (2005) Uni Stuttgart: Techniken und Methoden der Hydroinformatik - Modellierung von komplexen Hydrosystemen im Untergrund (08.07.2005)
- 16) Sabine Manthey (2006) Uni Stuttgart: Two-phase flow processes with dynamic effects in porous media – parameter estimation and simulation (17.02.2006)

- 17) Andreas Bielinski (2006) Uni Stuttgart: Numerical simulation of CO₂ sequestration in geological formations (20.02.2006)
- 18) Jennifer Niessner (2006) Uni Stuttgart: Multiscale modeling of multi-phase – multi-component processes in heterogeneous porous media (27.07.2006)
- 19) Steffen Ochs (2006) Uni Stuttgart: Steam injection into saturated porous media – process analysis including experimental and numerical investigations (18.12.2006)
- 20) Alexandros Papafotiou (2008) Uni Stuttgart: Numerical investigations of the role of hysteresis in heterogeneous two-phase flow systems (25.02.2008)
- 21) Anongnart Assteerawatt (2008) Uni Stuttgart: Flow and transport modelling of fractured aquifers based on a geostatistical approach (21.07.2008)
- 22) Sandra Freiboth (2008) Uni Stuttgart: A phenomenological model for the numerical simulation of multiphase multicomponent processes considering structural alterations of porous media (18.12.2008)
- 23) Anozie Ebigbo (2009) Uni Stuttgart: Modelling of biofilm growth and its influence on CO₂ and water (two-phase) flow in porous media (25.05.2009)
- 24) Andreas Kopp (2009) Uni Stuttgart: Evaluation of CO₂ injection processes in geological formations for site screening (28.05.2009)
- 25) Jochen Fritz (2010) Uni Stuttgart: A decoupled model for compositional non-isothermal multiphase flow in porous media and multiphysics approaches for two-phase flow (07.06.2010)
- 26) Mehmet Onur Dogan (2010) Uni Stuttgart: Coupling of porous media flow with pipe flow (19.11.2010)
- 27) Alexandru Tatomir (2012) Uni Stuttgart: From discrete to continuum concepts of flow in fractured porous media (15.02.2012)
- 28) Karin Erbertseder (2012) Uni Stuttgart: Modelling the spatial and temporal distribution of therapeutic agents in pulmonary tumours (16.02.2012)
- 29) Cjestmir de Boer (2012) Uni Stuttgart: Transport of nano-sized zero-valent iron colloids during injection into a confined aquifer (19.07.2012)
- 30) Andreas Lauser (2013) Uni Stuttgart: Theory and numerical applications of compositional multiphase flow in porous media (28.06.2013)
- 31) Markus Wolff (2013) Uni Stuttgart: Multi-scale multi-physics numerical models for flow and transport in porous media (24.07.2013)
- 32) Klaus Mosthaf (2013) Uni Stuttgart: Modeling and analysis of coupled porous-medium and free flow with application to evaporation processes
- 33) Benjamin Faigle (2013) Uni Stuttgart: Adaptive modelling of two- (three-) phase flow with capillary pressure (02.12.2013)
- 34) Katherine Baber (2014) Uni Stuttgart: Coupling of micro- and macro-models for complex flow and transport processes in biological tissue (15.06.2014)

Rainer Helmig: Main Supervisor Doctorates

- 35) Philipp Nuske (2014) Uni Stuttgart: Beyond local equilibrium – relaxing local equilibrium assumptions in multiphase flow in porous media (13.10.2014)
- 36) Vishal Jambhekar (2016) Uni Stuttgart: Numerical modeling and analysis of evaporative salinization in a coupled free-flow/porous-media system (08.07.2016)
- 37) Thomas Fetzer (2018) Uni Stuttgart: Modeling and analysis of evaporation from porous media coupled with turbulent free flow (20.02.2018)
- 38) Martin Schneider (2018) Uni Stuttgart: Efficient and robust models for large-scale applications in porous media (08.06.2018)
- 39) Kilian Weishaupt (2020) Uni Stuttgart: Kopplung von Masse, Impuls und Energie am Interface zwischen freier und poröser Strömung (12.03.2020)
- 40) Sina Ackermann (2020) Uni Stuttgart: A multi-scale approach for drop/porous-medium interaction (19.06.2020)
- 41) Heck Katharina (2020) Uni Stuttgart: Modelling and analysis of multicomponent transport at the interface between free- and porous-medium flow - influenced by radiation and roughness (17.12.2020)
- 42) Beatrix Becker (2021) Uni Stuttgart: Development of multi-physics models accounting for hysteresis and reversible flow at various subsurface energy storage sites (22.06.2021)
- 43) Cynthia Michalkowski (2022) Uni Stuttgart: Modeling water transport at the interface between porous GDL and gas distributor of a PEM fuel cell cathode (25.01.2022)
- 44) Maziar Veyskarami (2023) Uni Stuttgart: Coupled free-flow-porous media flow processes including drop formation (12.07.2023)
- 45) Melanie Lipp (2024) Uni Stuttgart: Capturing local details in fluid-flow simulations: options, challenges and applications using marker-and-cell schemes (14.06.2024)
- 46) Edward Coltman (2024) Uni Stuttgart: Coupled Free-Flow and Porous-Medium Flow Systems: An Analysis of Soil Water Evaporation on Multiple Scales (16.07.2024)