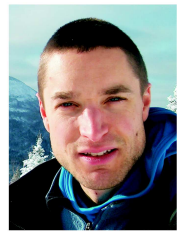


APL. PROF. DR. THOMAS GRAF

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born on August-09 1974; married; German nationality; three children



EDUCATION

Ph.D. <i>summa cum laude</i> in Hydrogeology Department of Geological Engineering, UNIVERSITÉ LAVAL	2005 QUEBEC CITY QC, CANADA
M.Sc. (“Diplom”) in Hydrology with a minor in Soil Science and Geology Institute of Hydrology, ALBERT-LUDWIGS-UNIVERSITÄT FREIBURG	2001 FREIBURG, GERMANY
B.Sc. (“Vordiplom”) in Hydrology and Geology Institute of Hydrology, ALBERT-LUDWIGS-UNIVERSITÄT FREIBURG	1997 and 1999, respectively FREIBURG, GERMANY

PROFESSIONAL EXPERIENCE

apl. Professor Emmy Noether Research Group Leader Juniorprofessor Institute of Fluid Mechanics, LEIBNIZ UNIVERSITÄT HANNOVER	06/2015 - present 04/2011 - 03/2016 11/2009 - 05/2015 HANNOVER, GERMANY
Basin-Hydrogeologist ALBERTA GEOLOGICAL SURVEY Density-driven fluid flow in geothermal reservoirs on the sedimentary-basin scale.	11/2008 - 10/2009 EDMONTON AB, CANADA
Senior Lecturer in Hydrogeology Center of Geosciences, GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN Replacing Professor Sauter (sabbatical leave) in teaching and research.	04/2008 - 09/2008 GÖTTINGEN, GERMANY
Research Associate Center of Geosciences, GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN Numerical groundwater modeling in fractured rock. Assisting/teaching courses and co-supervising Ph.D. and Master’s students.	06/2007 - 03/2008 GÖTTINGEN, GERMANY
Postdoctoral Fellow Department of Geological Engineering, UNIVERSITÉ LAVAL Consulting service for Ontario Power Generation within the nuclear waste management program. Completing numerical large-scale simulations at a potential site for radioactive waste disposal in Finland.	01/2006 - 04/2007 QUEBEC CITY QC, CANADA
Visiting Scientist FLINDERS UNIVERSITY Solute transport in locally refined grids near matrix-fracture interfaces. Co-workers: Craig T. Simmons, Douglas Weatherill, Neville Robinson.	02/2005 - 03/2005 ADELAIDE SA, AUSTRALIA
Intern in Hydrogeological Modeling FLINDERS UNIVERSITY Used FRAC3DVS to numerically simulate flow and solute transport in fractured rock. Co-workers: Craig T. Simmons, René Therrien, Peter G. Cook (CSIRO).	12/1999 - 03/2000 ADELAIDE SA, AUSTRALIA
Consultant in Hydrogeology OFFICE FOR SOIL AND WATER PROTECTION (HYDRO-DATA) Hydrological field work and numerical simulations with MODFLOW and FEFLOW	08/1999 and 10/1999 FREIBURG, GERMANY

RESEARCH INTERESTS / SKILLS

- Research hydrogeologist with interests in **coastal flow dynamics**, fractured rock, numerical methods.
- Modeler of **coupled geoprocesses** (e.g. variable-density flow, surface-subsurface coupling, reactive transport).
- Scientific **programmer** (fortran, matlab) using finite element method.
- Member of the **HydroGeoSphere** developer group in Waterloo, Canada, since 2003.
- Member of the **OpenGeoSys** and **TOUGH2** user groups since 2011.
- International collaborator (contacts to Australia, Belgium, Canada, Germany, Switzerland, USA).
- **Trilingual** (German, English, French).

AWARDS

Best Lecturer Award in WATENV M.Sc. program LEIBNIZ UNIVERSITÄT HANNOVER	2013, 2014 HANNOVER, GERMANY
Emmy Noether Research Group Leader (85 k€) LEIBNIZ UNIVERSITÄT HANNOVER Funded by DFG for 5 years with 3 full-time research positions	04/2011 - 03/2016 HANNOVER, GERMANY
Ph.D. <i>summa cum laude</i> UNIVERSITÉ LAVAL	12/2005 QUEBEC CITY QC, CANADA
Stipend from Natural Sciences and Engineering Research Council of Canada (40 k€) UNIVERSITÉ LAVAL	09/2003 - 12/2005 QUEBEC CITY QC, CANADA
DAAD Postgraduate Stipend during Ph.D. Studies (10 k€) UNIVERSITÉ LAVAL	09/2002 - 08/2003 QUEBEC CITY QC, CANADA
DAAD Stipend during Internship (2 k€) FLINDERS UNIVERSITY	12/1999 - 03/2000 ADELAIDE SA, AUSTRALIA
Max-Planck-Award for best High School degree (1.2 = A-) Johannes-Kepler-Award for best Mathematics/Physics grades (1+ = A+) MAX-PLANCK-GYMNASIUM (HIGH SCHOOL)	06/1994 LAHR, GERMANY

COMMUNITY SERVICE

- Associate Editor for Hydrogeology Journal
- Chair of session *Coupled processes in the subsurface* at ModelCARE in Leipzig, 2011
- Principal organizer of the 2nd International HydroGeoSphere User Conference in Hannover, 2011
- Chair of session *Fissured and karstified aquifers* at EGU General Assembly in Vienna, 2008
- Member of the Äspö Task Force on underground storage of nuclear waste in Finland, 2005-2007
- Reviewer for scientific journals: Acta Geophysica [2], Advances in Water Resources [12], Applied Geochemistry [1], Applied Mathematical Modelling [1], Canadian Geotechnical Journal [1], Canadian Water Resources Journal [2], Central European Journal of Geosciences [5], Computers and Geosciences [2], Conference Proceedings [5], Earth's Future [1], Engineering with Computers [1], Environmental Modelling and Assessment [1], Environmental Modelling and Software [2], Geophysical Research Letters [4], Grundwasser [2], Hydrogeology Journal [7], Hydrology and Earth System Sciences [6], International Journal for Numerical Methods in Fluids [1], Journal of Cave and Karst Studies [1], Journal of Coastal Research [1], Journal of Computational and Applied Mathematics [1], Journal of Contaminant Hydrology [7], Journal of Environmental Engineering [1], Journal of Hydrology [10], Marine Pollution Bulletin [1], Water [2], Water Resources Research [5]

TEACHING

- Courses for graduate students
 - Groundwater Modelling
 - Modeling of Hydrosystems
 - Flow and Transport Processes
 - Hydromechanics
 - Contaminant Hydrogeology
 - Environmental Data Analysis
- Courses for undergraduate students
 - Process Simulation
 - Introduction to Simulation Theory

SUPERVISED PHD STUDENTS

Tuong Vi Tran Physical analysis and numerical modeling of flow systems in the Nam Co catchment, Tibetan Plateau	01/2018 - present
Aaron Peche A fully coupled urban subsurface flow model	11/2014 - 02/2019
Leonard Stoeckl (now at BGR) Variable-density flow in the subsurface of oceanic islands: physical experiments and numerical modeling	10/2013 - 05/2016
Carlos Roberto Guevara Morel (now at BPI-Hannover) Numerical schemes for the simulation of plume fingering in variable-density flow and transport problems	10/2011 - 09/2016
Eugenia Mabel Hirthe (now at Continental AG) Optimizing simulations of variable-density flow and transport problems	08/2011 - 12/2014
Jie Yang (now at Helmholtz-Centre for Environmental Research GmbH - UFZ) Investigating processes and impacts of climate change on seawater intrusion in a coastal aquifer	04/2011 - 02/2015
Katharina Vujević (now at R&H Umwelt GmbH) Free convection in fractured porous media	05/2010 - 10/2015

AFFILIATIONS

European Geosciences Union (EGU)
Fachsektion Hydrogeologie in der Deutschen Gesellschaft für Geowissenschaften - Geologische Vereinigung e.V.
(FH-DGGV)



UNIVERSITÉ
LAVAL

Vu le rapport favorable des autorités compétentes attestant que

Thomas Graf

a satisfait aux exigences du programme de

Doctorat interuniversitaire en sciences de la Terre

l'Université Laval lui a conféré, en vertu des pouvoirs qu'elle détient, le grade de

Philosophiae doctor (Ph.D.)

En foi de quoi, nous avons signé le présent diplôme
portant le sceau de l'Université.

Québec, le 31 décembre 2005



Guillaume Rioux
Secrétaire général

André G. Gauthier
Recteur