

Anh Phuong Tran, Ph.D.

Lawrence Berkeley National Laboratory
1 Cyclotron Road
Berkeley, California, 94720 USA

Mobile: (510) 200-6779
E-mail: aptran@lbl.gov
<https://sites.google.com/a/lbl.gov/phuongtran>

Education

- **Ph.D. Université catholique de Louvain, Belgium, 2014**
Supervisor: Prof. Sébastien Lambot
Dissertation: *Full-Wave Inversion of Near-Field GPR Data for Hydrogeophysical Characterization of Soil*
- **M.Eng. Sejong University, South Korea, 2010**
Supervisor: Prof. Bae Deg Hyo
Thesis: *Coupling of Hydrological, Hydraulic Models, and Weather Radar Data for Flood and Inundation Prediction*
- **B.Sc. Vietnam National University-Hanoi, Vietnam, 2005**
Supervisor: Prof. Huu Khai Nguyen
Thesis: *Application of GIS, Hydrological and Hydraulic Models for Flood Forecast in Huong River Basin*

Research Experience

- **2014 – present: Postdoctoral Fellow, Earth Sciences Division, Lawrence Berkeley National Laboratory, United States (with Dr. Susan Hubbard)**
 - Characterized the subsurface stratigraphy by jointly using electrical resistivity data (ERT) and borehole logs
 - Developed a joint hydrological-thermal-geophysical inversion to estimate soil hydrological and thermal parameters from ERT and other data
 - Estimated soil organic content and associated surface-subsurface hydrological-thermal dynamics in the Arctic tundra by monitoring and inverse modeling of above- and below-ground measurements
 - Explored the spatiotemporal variation of active layer thickness and its controls in the permafrost region by joint interpretation of electrical resistivity data and numerical modeling
 - Developed a Matlab-based graphical user interface (GUI) for pre- and post-processing a nonisothermal hydrological model
 - Combined numerical modeling and data-driven approach for better prediction of surface-subsurface hydrobiogeochemical processes and properties
 - Developed a cloud-based data assimilation framework to improve surface-subsurface hydrological-thermal prediction in real-time using observations of soil moisture, soil temperature, and geophysical data
 - Quantified groundwater recharge and evapotranspiration using a hydrogeophysical approach

- **2010 – 2014: Research Assistant, Environmental Science – Earth and Life Science Institute, Université catholique de Louvain, Belgium (with Prof. Sébastien Lambot)**
 - Developed a full-wave near-field antenna model for reconstruction of soil layers
 - Integrated soil dielectric mixing model into full-wave antenna inversion to directly estimate soil moisture from ground-penetrating radar data
 - Applied the data fusion technique to combine ground-penetrating radar and frequency domain reflectometry for high-resolution space-time quantification of soil moisture variability along a hillslope
 - Developed a coupled hydrological-geophysical data assimilation framework to estimate soil hydrological parameters and to update subsurface soil moisture profile prediction from ground-penetrating radar data
- **2008 – 2010: Research Assistant, Waterway Research Institute, Sejong University, South Korea (with Prof. Bae Deg Hyo)**
 - Developed an algorithm to pre-process weather radar data and estimate rainfall
 - Coupled hydrological, hydraulic models, and weather radar data for flood prediction in urban areas
- **2005 – 2008: Hydrological Researcher, Center for Hydrology & Water Resources, Vietnam Institute of Hydrology, Meteorology, and Environment (with Dr. La Thanh Ha)**
 - Established a procedure to calibrate and validate rainfall-runoff models using event stream flow data
 - Combined hydrological models and ArcGIS to construct a flood inundation map in the Huong river basin
 - Determined rainfall threshold serving for flashflood warning system
 - Developed a GUI hydro-meteorological and geographical database based on Visual.NET and MapObjects

Teaching and Mentoring Experience

- *Teaching:*
 - 2006 – 2007: Lecturer Assistant for the undergraduate course “*Applied Hydrology*”, College of Sciences, Vietnam National University, Hanoi.
 - 2013 – 2014: Lecturer for the graduate course “*Hydrogeophysics*”, Université catholique de Louvain, Belgium
- *Mentoring:* Jiancong Chen (Ph.D. student, UC Berkeley, 2016-2020), Thanh Thuy Nguyen (Bachelor student, ThuyLoi University, 2007-2008), Joric Chea (Master student, University of Twente, 2006-2007).

Professional Activities

- Member of the European Geoscience Union (EGU), 2010 - present
- Member of the American Geoscience Union (AGU), 2014 - present
- Reviewer of *Water Resources Research*, *Advances in Water Resources*, *Geophysics*, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, *IEEE*

Transactions on Geoscience and Remote Sensing, Sensors, Waters, Journal of Applied Geophysics, Radio Science

- Scientific Review Panel of the 15th International Conference on Ground Penetrating Radar, GPR 2014
- Co-chair of Agricultural Geophysics session, SEG Annual Conference, Anaheim, 2018
- Co-chair of Advances in Geophysical Tomographic Methods workshop SEG Annual Conference, Anaheim, 2018

Computer skills

- Fluent in programming languages: Matlab, Fortran, Python, C++, Visual Basic
- Fluent in parallel computing libraries: OpenMPI, MPICH, pMatlab
- Fluent in GIS software: ArcGIS, MapInfo
- Fluent in hydrology and geophysics software: TOUGH2, Hydrus, CLM, BERT

Awards

- Ph.D. scholarship, Université Catholique de Louvain, 2010-2014
- Master scholarship, Sejong University, 2008-2010
- Toshiba Scholarship for Outstanding Graduate Students, Toshiba Corporation, 2007
- First-Ranked Student Award in Hydrology, Vietnam National University, Hanoi, 2005
- University Annual Scholarship for Excellent Students, Vietnam National University, Hanoi, 2001-2005
- Odon Vallet, Rencontres du Vietnam Award, 2002

Grants and Projects

- *Project title: Impacts of Sea Level Rise and Groundwater Exploitation on Land Loss in the Vietnam Mekong River*
 - Source of Support: Vietnam's National Foundation for Science and Technology Development
 - Total Award Amount: \$100,000/2 years
 - Total Award Period Covered: 10/2017 – 10/2019
 - Location of Project: ThuyLoi University (PI: Pham Van Chien)
 - My role: co-PI
- *Project title: Next Generation Ecosystem Experiment (NGEE Arctic)*
 - Source of Support: Department of Energy (SC/BER)
 - Total Award Amount: \$6M/yr
 - Total Award Period Covered: 6/2014 – 5/2018
 - Location of Project: Oak Ridge National Lab (PI: S. Wulfschleger)
 - My role: Development of hydrogeophysical inversion as part of the Permafrost Characterization Team
- *Project title: LBNL Sustainable Systems Science Focus Area 2.0 (SFA – Berkeley Lab)*

- Source of Support: Department of Energy (SC/BER)
 - Total Award Amount: \$6.9M/yr
 - Total Award Period Covered: 6/2014 – 9/2018
 - Location of Project: Berkeley National Lab (PI: S. Hubbard)
 - My role: Development of a real-time data assimilation framework as part of the Ecohydrology and Watershed Characterization Teams
- *Project title: The Hillslope as Elementary Unit for Regional Scale Modelling of Soil Organic Carbon*
- Source of Support: Université catholique de Louvain
 - Total Award Amount: \$ 244,000/yr
 - Total Award Period Covered: 4/2011 – 6/2014
 - Location of Project: Université catholique de Louvain (PI: B. van Wesemael)
 - My role: Member, Hillslope scale: monitoring soil moisture component
- *Project title: Development and Integration of Advanced Ground Penetrating Radar and Electromagnetic Induction for Soil Hydrogeophysical Characterization and Monitoring to Support Sustainable and Optimal Management of Soil and Water Resources*
- Source of Support: Université catholique de Louvain
 - Total Award Amount: \$35,000/yr
 - Total Award Period Covered: 4/2010 – 4/2011
 - Location of Project: Université catholique de Louvain (PI: S. Lambot)
 - My role: Main investigator

Publications

Peer-Reviewed Journal Articles

1. **Tran, Anh Phuong**, Dafflon, Baptiste, Bisht, Gautam, Hubbard, S. Susan (2017). “Spatial and Temporal Variations of Thaw Layer Thickness and Its Controlling Factors Identified Using Time-lapse Electrical Resistivity Tomography and Hydrological-Thermal Modeling.” *Journal of Hydrology*. *Accepted*.
2. **Tran, Anh Phuong**, Dafflon, Baptiste, Hubbard, and S. Susan (2017). “Coupled Land Surface-Subsurface Hydrogeophysical Inverse Modeling to Estimate Soil Organic Content and Explore Associated Hydrological and Thermal Dynamics in an Arctic Tundra.” *The Cryosphere*, 11, 2089-2109, Doi:10.5194/tc-11-2089-2017.
3. Dafflon, Baptiste, Oktem, Rusen, Peterson, John, Ulrich, Craig, **Tran, Anh Phuong**, Romanovsky, Vladimir, and Hubbard, S. Susan (2017). “Coincident Aboveground and Belowground Autonomous Monitoring to Quantify Covariability in Permafrost, Soil, and Vegetation Properties in the Arctic Tundra.” *Journal of Geophysical Research – Biogeosciences*, Doi: 10.1002/2016JG003724.
4. **Tran, Anh Phuong**, Dafflon, Baptiste, Kowalsky, Michael, Long, Philip, Tokunaga, Tetsu K., Williams, Kenneth H., and Hubbard, S. Susan (2016). “Quantifying Shallow Subsurface Water and Heat Dynamics Using Coupled Hydrological-Thermal-Geophysical Inversion.” *Hydrology and Earth System Sciences*, 20, 3477-3491, 2016. Doi:10.5194/hess-20-3477-2016.
5. De Coster, Albéric, **Tran, Anh Phuong**, Lambot, and Sébastien (2016). “Fundamental Analyses on Layered Media Reconstruction Using GPR and Full-Wave Inversion in Near-Field

- Conditions.” *IEEE Transactions on Geoscience and Remote Sensing*, 99, 1-16. Doi: 10.1109/TGRS.2016.2556862.
6. **Tran, Anh Phuong**, Dafflon, Baptiste, and Hubbard, S. Susan (2016). “iMatTOUGH: An open-source Matlab-Based Graphical User Interface for Pre- and Post-Processing of TOUGH2 and iTOUGH2 Model.” *Computers & Geosciences*, 89, 132-143. Doi:10.1016/j.cageo.2016.02.006.
 7. **Tran, Anh Phuong**, Bogaert, Patrick, Wiaux, Francois, Vanclooster, Marnik, and Lambot, Sébastien (2015). “High-Resolution Space-time Quantification of Soil Moisture along a Hillslope Using Joint Analysis of Ground-Penetrating Radar and Frequency Domain Reflectometry Data.” *Journal of Hydrology*, 523, 252-261. Doi:10.1016/j.jhydrol.2015.01.065.
 8. **Tran, Anh Phuong**, Vanclooster, Marnik, Zupanski, Milija, and Lambot, Sébastien (2014). “Joint Estimation of Soil Moisture Profile and Hydraulic Parameters by Ground Penetrating Radar Data Assimilation with Maximum Likelihood Ensemble Filter.” *Water Resources Research*, 50(4), 3131-3146. Doi :10.1002/2013WR014583.
 9. **Tran, Anh Phuong**, André, Frédéric, and Lambot, Sébastien (2014). “Validation of Near-Field Ground Penetrating Radar Modeling Using Full-Wave Inversion for Soil Moisture Estimation.” *IEEE Transactions on Geoscience and Remote Sensing*, 52, 5483-5497. Doi :10.1109/TGRS.2013.2289952.
 10. **Tran, Anh Phuong**, Vanclooster, Marnik, and Lambot, Sébastien (2013). “Improving Soil Moisture Profile Reconstruction from Ground Penetrating Radar Data: A Maximum Likelihood Ensemble Filter Approach.” *Hydrology and Earth System Sciences*, 17, 2543-2556. Doi :10.5194/hess-17-2543-2013.
 11. **Tran, Anh Phuong**, André, Frédéric, Craeye, Christophe, and Lambot, Sébastien (2013). “Near-Field or Far-Field Full-Wave Ground Penetrating Radar Modeling as a Function of the Antenna Height Above a Planar Layered Medium.” *Progress in Electromagnetics Research B*, 141, 415-430.
 12. **Tran, Anh Phuong**, Warren, C., André, Frédéric, Giannopolous, Athanasios, and Lambot, Sébastien (2013). “Numerical Evaluation of a Full-Wave Antenna Model for Near-Field Applications.” *Near Surface Geophysics*, 11(2), 155-165. Doi :10.3997/1873-0604.2012052.
 13. **Tran, Anh Phuong**, Mahmoudzadeh, Ardekani Mohammad Reza, and Lambot, Sébastien (2012). “Coupling of Dielectric Mixing Models with Full-Wave Ground Penetrating Radar Signal Inversion for Sandy-Soil-Moisture Estimation.” *Geophysics*, 77, 33-44. Doi :10.1190/GEO2011-0100.1.
 14. Yoon, Seong-Sim, **Tran, Anh Phuong**, and Bae, Deg-Hyo (2012). “Quantitative Comparison of the Spatial Distribution of Radar and Gauge Rainfall Data.” *Journal of Hydrometeorology*, 13, 1939–1953. Doi: <http://dx.doi.org/10.1175/JHM-D-11-066.1>.
 15. Nguyen, Tien Giang and **Tran, Anh Phuong** (2010). Calibration and Verification of a Hydrological Model Using Event Data.” *Journal of Science, Earth Sciences*, 26, 64-74.
 16. Bae, Deg-Hyo, **Tran, Anh Phuong**, and Yoon, Seong-Sim (2009). “A Method to Evaluate the Radar Rainfall Accuracy for Hydrological Application.” *Journal of Korea Water Resources Association*, 42(12), 1039-1052. Doi: 10.3741/JKWRA.2009.42.12.1039.
 17. Nguyen, Tien Giang, Joric, Chea and **Tran, Anh Phuong** (2009). “A Method to Construct Flood Damage Map with an Application to Huong River Basin, in Central Vietnam.” *VNU Journal of Science, Earth Sciences*, 25(1), 10-19.
 18. Nguyen, Tien Giang, Tran, Ngoc Anh, Nguyen, Thanh Son, **Tran, Anh Phuong**, Ngo, Chi Tuan, Nguyen, and Duc Hanh (2009). “Assessment and Prediction of Water Pollution Induced by Aquaculture Activities at the Seashore in Quang Tri.” *VNU Journal of Science*, 25(1S), 35-45. (In Vietnamese)

19. Nguyen, Tien Giang, **Tran, Anh Phuong**, Tran, Ngoc Anh, Nguyen, Thanh Son, Nguyen, and Truong Khoa (2008). "Using Multi-Criteria Analysis as a Tool to Select the Feasible Measures for Sustainable Development of Brackish Water Shrimp Culture in Quang Tri Province." *VNU Journal of Science, Earth Sciences*, 24(2), 66-78.
20. Nguyen, Huu Khai, and **Tran, Anh Phuong** (2005). "Coupled Hydrologic-Hydraulic Modelling for Flood Prediction in Huong River Basin." *Journal of Vietnam Hydrometeorology*, 11(539), 12-19 (In Vietnamese).

Book Chapters

1. **Tran, Anh Phuong**, 2014. "Full-Wave Inversion of Near-Field GPR Data for Hydrogeophysical Characterization of Soil." Ph.D. dissertation.
2. Minet, Julien; Jadoon, Khan Zaib; Jonard, François; Mahmoudzadeh, Mohammad; **Tran, Anh Phuong**; Lambot, Sébastien. "Advanced Ground-Penetrating Radar for Soil Moisture Retrieval." In *Multiscale Hydrologic Remote Sensing: Perspectives and Applications*, Publisher: CRC Press, Editors: Chang, Ni-Bin and Hong, Yang, 9-32. Doi: 10.1201/b11279-4.
3. **Tran, Anh Phuong** and Lambot, Sébastien. "Development of Intrinsic Models for Describing Near-Field Antenna Effects, Including Antenna-Medium Coupling, for Improved Radar Data Processing Using Full-Wave Inversion." In *Civil Engineering Applications of Ground Penetrating Radar*, Publisher: Springer, Editors: Benedetto, Andrea and Pajewski, Lara, 219-238. Doi: http://dx.doi.org/10.1007/978-3-319-04813-0_9.

Peer-Reviewed Conferences

1. **Tran, Anh Phuong**, and Lambot, Sébastien. (2014). "Intrinsic Modeling of Antenna Array in Near-Field Conditions." In Proceedings of the 15th International Conference on Ground Penetrating Radar, 519-524. Doi: 10.1109/ICGPR.2014.6970478.
2. Mertens, Laurence, **Tran, Anh Phuong**, and Lambot, Sébastien. (2014). "Determination of the Stability of a Pulse GPR System and Quantification of the Drift Effect on Soil Material Characterization by Full-Wave Inversion." In Proceedings of the 15th International Conference on Ground Penetrating Radar, 479-483. Doi: 10.1109/ICGPR.2014.6970471.
3. De Coster, Albéric, **Tran, Anh Phuong**, and Lambot, Sébastien. (2014). "Impact of the Antenna Offset and the Number of Frequencies on Layered Media Reconstruction Using Full-Wave Inversion in Near-Field Conditions." In Proceedings of the 15th International Conference on Ground Penetrating Radar, 491-496. Doi: 10.1109/ICGPR.2014.6970473.
4. Mourmeaux, Nicolas, **Tran, Anh Phuong**, and Lambot, Sébastien. (2014). "Soil Permittivity and Conductivity Characterization by Full-Wave Inversion of Near-Field GPR Data." In Proceedings of the 15th International Conference on Ground Penetrating Radar, 497-502. Doi: 10.1109/ICGPR.2014.6970474.
5. André, Frédéric, **Tran, Anh Phuong**, Mourmeaux, Nicolas, Mahmoudzadeh Ardekani, Mohammad Reza, Bogaert, Patrick, and Lambot, Sébastien (2013). "Integrated Modeling of Near-Field Ground Penetrating Radar and Electromagnetic Induction Data for Digital Soil Mapping." *Bornimer Agrartechnische Berichte, Heft 82*, 211-219.
6. Lambot, S., Tran, A. P., André, F. (2013). "Intrinsic Modeling of Radar Antennas: From Far-Field to Near-Field Conditions." In Proceedings of the 7th International Workshop on Advanced Ground Penetrating Radar (IWAGPR), 2013, 1-5.
7. Mourmeaux, Nicolas, **Tran, Anh Phuong**, André, Frédéric, and Lambot, Sébastien. (2013). "Near-Field Ground Penetrating Radar Modeling for Characterization of a Reference Water Layer at Low Frequencies." In *EarthDoc* (p. WeP01).

8. Mertens, Laurence, **Tran, Anh Phuong**, and Lambot, Sébastien. (2013). "Towards Physically-Based Filtering of the Soil Surface, Antenna and Coupling Effects from Near-Field GPR Data for Improved Subsurface Imaging." In Proceedings of the 6th International Workshop on Advanced Ground Penetrating Radar. Doi: 10.1109/IWAGPR.2013.6601524.
9. Lambot, Sébastien, **Tran, Anh Phuong**, and André, Frédéric. (2012). "Near-Field Modeling of Radar Antennas for Wave Propagation in Layered Media: When Models Represent Reality." In Proceedings of the 14th International Conference on Ground Penetrating Radar. 42-46. Doi: 10.1109/ICGPR.2012.6254829.
10. André, Frédéric, **Tran, Anh Phuong**, Mourmeaux, Nicolas, and Lambot, Sébastien. (2012). "Integrated Modeling of Near-Field Ground Penetrating Radar and Electromagnetic Induction Data for Reconstructing Multilayered Media." In Proceedings of the 14th International Conference on Ground Penetrating Radar. 407-412. Doi: 10.1109/ICGPR.2012.6254900.
11. **Tran, Anh Phuong**, Wiaux, François, and Lambot, Sébastien (2012). "Soil Moisture Estimation Using Full-Wave Inversion of Near- and Far-Field Ground Penetrating Radar Data: A Comparative Evaluation." In Proceedings of the 14th International Conference on Ground Penetrating Radar, 296 - 300. Doi: 10.1109/ICGPR.2012.6254877.
12. **Tran, Anh Phuong**, Warren, C., André, Frédéric, and Lambot, Sébastien (2011). "Numerical Evaluation of a Full-Wave Antenna Model for Near Field Applications." In Proceedings of the 6th International Workshop on Advanced Ground Penetrating Radar. Doi: 10.1109/IWAGPR.2011.5963849.

Conference Abstracts (Selected)

1. **Tran, Anh Phuong** (2015). "Coupled Monitoring and Inverse Modeling to Investigate Surface-Subsurface Hydrological and Thermal Dynamics in the Arctic Tundra." 2015 AGU Fall Meeting.
2. **Tran, Anh Phuong**, Dafflon, Baptiste, Hubbard, S. Susan, Kowalsky, B. Michael, Tokunaga, Tetsu K, Faybishenko, Boris, Long, and Phillip (2014). "Monitoring Soil Hydraulic and Thermal Properties Using Coupled Inversion of Time-Lapse Temperature and Electrical Resistance Data." AGU General Assembly, San Francisco, United States, 2014.
3. De Coster, Albéric, **Tran, Anh Phuong**, and Lambot, Sébastien (2014). "Information Content in Frequency-Dependent, Multi-Offset GPR Data for Layered Media Reconstruction using Full-Wave Inversion." Geophysical Research Abstracts, 16, EGU2014-658-1.
4. Lambot, Sébastien, Mahmoudzadeh Ardekani, Mohammad Reza, **Tran, Anh Phuong**, Nottebaere, Martijn, Leonard, Aline, Defourny, Pierre, and Neyt, Xavier (2014). "High-Resolution Mapping of Soil Moisture at the Field Scale Using Ground Penetrating Radar for Improving Remote Sensing Data Products." Geophysical Research Abstracts, vol.16 (p. EGU2014-9991).
5. Van Oost, Kristof, Nadeu Puig-Pey, Elisabet, Wiaux, François, Wang, Zhengang, Stevens, François, Vanclooster, Marnik, **Tran, Anh Phuong**, Bogaert, Patrick, Doetterl, Sebastian, Lambot, Sébastien, and van Wesemael, Bas (2014). "Soil Organic Matter Dynamics and CO2 Fluxes in Relation to Landscape Scale Processes: Linking Process Understanding to Regional Scale Carbon Mass-Balances." Geophysical Research Abstracts, vol.16 (p. EGU2014-11107).
6. **Tran, Anh Phuong**, Vanclooster, Marnik, and Zupanski, Milija (2014). Joint Estimation of Soil Moisture Profile and Hydraulic Parameters by Ground Penetrating Radar Data Assimilation with Maximum Likelihood Ensemble Filter." Communication présentée à Ph.D. Student Day ENVITAM, Espace Senghor, Gembloux.
7. **Tran, Anh Phuong**, André, Frédéric, and Lambot, Sébastien (2013). "Soil Moisture Characterization Using a New Full-Wave, Near-Field Antenna Model: From Laboratory to Field Applications." Communication présentée à International Conference NovCare 2013, Helmholtz Centre for Environmental Research, Leipzig, Germany.

8. André, Frédéric, **Tran, Anh Phuong**, Mourmeaux, Nicolas, and Lambot, Sébastien (2013). "Intrinsic Modeling of Near-Field Ground Penetrating Radar and Electromagnetic Induction Antennas for Layered Medium Characterization." Geophysical Research Abstracts, vol.15 (p. EGU2013-11565). Vienna, Austria: Copernicus.
9. Lambot, Sébastien, **Tran, Anh Phuong**, and André, Frédéric (2012). "A Closed Form Full-Wave Radar Model for Near-Field Layered Media Reconstruction." Communication présentée à XIX Riunione Nazionale di Elettromagnetismo, Rome (Italy).
10. Lambot, Sébastien, **Tran, Anh Phuong**, and André, Frédéric (2012). "Far-Field and Near-Field Modeling of Ground Penetrating Radar for Digital Soil Mapping." Communication présentée à 16th International Water Technology Conference, Istanbul, Turkey.
11. Mahmoudzadeh Ardekani, Mohammad Reza, **Tran, Anh Phuong**, Minet, Julien, Vanclooster, Marnik, and Lambot, Sébastien (2012). "Ground Penetrating Radar for Temporal Soil Moisture Variability Analysis along a Land Slope." Communication présentée à EGU General Assembly 2012, Vienna (Austria).
12. Mourmeaux, Nicolas, André, Frédéric, **Tran, Anh Phuong**, and Lambot, Sébastien (2012). "Modeling of Near-Field Ground Penetrating Radar for Digital Soil Mapping." Communication présentée à Ph.D. Student Day ENVITAM, Espace Senghor, Gembloux.
13. Lambot, Sébastien, **Tran, Anh Phuong**, and André, Frédéric (2012). "Near-Field Modeling of Radar Antennas for Wave Propagation in Layered Media: When Models Represent Reality." Communication présentée à 14th International Conference on Ground Penetrating Radar (GPR 2012), Shanghai (Chine).
14. Lambot, Sébastien, **Tran, Anh Phuong**, and André, Frédéric (2012). "On the Importance of Modeling Antenna-Material Coupling for Quantitative Characterization Using GPR." Communication présentée à 18th European Meeting of Environmental and Engineering Geophysics of the Near Surface Geoscience Division of EAGE Workshop "New Developments on GPR theory and applications," Paris (France).
15. **Tran, Anh Phuong**, and Lambot, Sébastien (2012). "Temporal and Spatial Characterization of Soil Moisture by Near-Field GPR Data." Communication présentée à Ph.D. Student Day ENVITAM, Espace Senghor, Gembloux.
16. **Tran, Anh Phuong**, Mahmoudzadeh Ardekani, Mohammad Reza, and Lambot, Sébastien (2011). "Frequency Dependence of Soil Permittivity and Conductivity Estimated by Ground Penetrating Radar Full-Waveform Inversion." EGU General assembly, Vienna, Austria.