

Publikationsverzeichnis – Mitarbeiter der Geophysica Beratungsgesellschaft mbH

Zeitschriften und Reihen

- Mottaghy, D.**, G. Schwaborn, & V. Rath (2013): Past climate changes and permafrost depth at the Lake El'gygytyn site: implications from data and thermal modelling, *Clim. Past*, 9, 119-133, doi:10.5194/cp-9-119-2013.
- Vogt, C., Iwanowski-Strahser, K., Marquart, G., **Arnold, J.**, **Mottaghy, D.**, **Pechinig, R.**, Gnjezda, D. & Clauser, C. (2013): Modeling contribution to risk assessment of thermal production power for geothermal reservoirs, *Renewable Energy* 53(0), 230-241.
- Mottaghy, D.** & L. Dijkshoorn, (2012): Implementing an effective finite difference formulation for borehole heat exchangers into a heat transport code, *Renewable Energy* 45, 59-71, DOI:10.1016/j.renene.2012.02.013.
- Mottaghy, D.**, **Pechinig, R.** & Vogt, C. (2011): The geothermal project Den Haag: 3D numerical models for temperature prediction and reservoir simulation, *Geothermics* 40(3), 199-210.
- Koch, A., Jorand, R., Vogt, C., **Arnold, J.**, **Mottaghy, D.**, **Pechinig, R.** & Clauser, C. (2011): Erstellung statischer abgesicherter thermischer und hydraulischer Gesteinseigenschaften für den flachen und tiefen Untergrund in Deutschland - Phase 2 - Westliches Nordrhein-Westfalen und bayerisches Molassebecken, *E.ON Energy Research Center Series*, Vol. 3, Issue 5, ISSN: 1868-7415
- Mottaghy, D.**, **Pechinig, R.**, Taugs, R., Thomsen, C., Hese, F. & T. Liebsch-Dörschner, (2010). Erstellung eines geothermischen Modells für Teile Hamburgs und anliegende Gebiete. *BBR - Fachmagazin für Brunnen- und Leitungsbau*, Jahresmagazin 12/2010, 61, 52-59.
- Mottaghy, D.** & **R. Pechinig**, (2009): Numerische 3-D Modelle zur Temperaturvorhersage und Reservoirsimulationen. *BBR - Fachmagazin für Brunnen- und Leitungsbau*, 60-10, 44-51.
- Vogt, C., **Mottaghy, D.**, Wolf, A., Rath, V., Pechinig, R. & C. Clauser, (2010): Reducing Temperature Uncertainties by Stochastic Geothermal Reservoir Modelling. *Geophys. J. Int.*, 181, 1, 321-333, (DOI)10.1111/j.1365-246X.2009.04498.
- Pechinig, R.**, & **D. Mottaghy**, (2009): Simulationswerkzeuge für Erdwärmesonden. *BBR - Fachmagazin für Brunnen- und Leitungsbau*, 60-6, 26-29.
- Mottaghy, D.**, Majorowicz, J. & V. Rath, (2009): Ground Surface Temperature Histories reconstructed from Boreholes in Poland: Implications for Spatial Variability, in R. Przybylak, J. Majorowicz, R. Brázdil & M. Kejna, (Hrsg.), *The Polish Climate in the European Context: An Historical Overview*, Springer, 375-388.
- Pape, H., **Arnold, J.**, **Pechinig, R.**, Clauser, C., Talnishnikh, E., Anferova, S. & B., Blümich, (2009): Permeability prediction for low porosity rocks by mobile NMR, *Pure Appl. Geophysics*, 166(5/7).
- Pechinig, R.** (2009): Bearbeitung von Bohrlochmessdaten der Bohrungen Urach 3 und Urach 4: Digitalisierung und Qualitätskontrolle; Lithologische Interpretation; Ableitung thermischer Kenngrößen; Erläuterungsbericht, BMBF FKZ 0327615A.
- Baier, Ch., Ziegler, M., **Mottaghy, D.** & V. Rath, (2008): Numerische Simulation des Gefrierprozesses bei der Baugrundvereisung im durchströmten Untergrund. *Bauingenieur*, Band 83, Februar 2008, 49-60.
- Mottaghy, D.**, Vosteen, H.-D. & R. Schellschmidt, (2008): Temperature dependence of the relationship of thermal diffusivity versus thermal conductivity for crystalline rocks, *International Journal of Earth Sciences*, DOI 10.1007/s00531-007-0238-3.
- Anferova, S., Anferov, V., **Arnold, J.**, Talnishnikh, E., Voda, M., Kupferschläger, K., Blümmler, P., Clauser, C. & Blümich, B., (2007): Improved Halbach Sensor for NMR Scanning of Drill Cores, *Magnetic Resonance Imaging*, 25 (4): 474-480.
- Arnold, J.**, Bartetzko, A., Paulick, H. & G. Iturrino, (2007): Facies reconstruction from resistivity-at-the-bit images recorded in a submarine felsic volcanic succession, *Marine Geophysical Researches*, 28, 331-341.
- Hartmann, A., **Pechinig, R.** & C. Clauser, (2007): Petrophysical analysis of regional-scale thermal properties for improved simulations of geothermal installations and basin-scale heat and fluid flow. *International Journal of Earth Sciences*, DOI 10.1007/s00531-007-0283-y.

Rath, V. & **D. Mottaghy**, (2007): Smooth inversion for ground surface temperature histories: estimating the optimum regularization parameter by generalised cross-validation, *Geophysical Journal International* 171 (3), 1440–1448.

Linek, M., Jungmann, M., Berlage, T., **Pechinig, R.** & C. Clauser, (2007): Rock classification based on resistivity patterns in electrical borehole wall images. *J. Geophys. Eng.*, 4, 1–13.

Arnold, J., Clauser, C., **Pechinig, R.**, Anferova, S., Anferov, V., & B. Blümich, (2006): Porosity and Permeability from mobile NMR core-scanning, *Petrophysics* 47, 306 – 314.

Mottaghy, G. & V. Rath, (2006): Latent heat effects in subsurface heat transport modelling and their impact on paleo-temperature reconstructions, *Geophys. J. Int.*, 164 (1), 236-245.

Bartetzko, A., Klitzsch, N., Iturrino, G., Kaufhold, S. & **Arnold, J.** (2005): Electrical properties of hydrothermally altered dacite from the PACMANUS hydrothermal field (ODP Leg 193), *Journal of Volcanology and Geothermal Research*, 152: 109-120.

Bartetzko, A., Delius, H. & **R. Pechinig**, (2005): Effect of compositional variations on log responses of igneous and metamorphic rocks I: mafic rocks, in: Harvey, P., Brewer, T., Pezard, P. & Petrov, V. (eds), *Petrophysical Properties of Crystalline Rocks*, Geological Society, London, Special Publications, 240, 255-278.

Mottaghy, D., Schellschmidt, R., Popov, Y., Kukkonen, I., Nover, G., Milanovsky, S., Borevsky, L., & C. Clauser, (2005): New heat flow data from the immediate vicinity of the Kola superdeep borehole: Vertical variation in heat flow density confirmed, *Tectonophysics* 401: 119-142.

Pechinig, R., Delius, H. & A. Bartetzko, (2005): Effect of compositional variations on log responses of igneous and metamorphic rocks II: acid and intermediate rocks, in: Harvey, P., Brewer, T., Pezard, P. & Petrov, V. (eds), *Petrophysical Properties of Crystalline Rocks*, Geological Society, London, Special Publications, 240, 279-300.

Anferova, S., Anferov, V., Rata, D.G., Blümich, B., **Arnold, J.**, Clauser, C., Blümmler, P., Raich, H., (2004): A Mobile NMR Device for Measurements of Porosity and Pore Size Distributions of Drilled Core Samples, *Concepts in Magnetic Resonance Part B (Magnetic Resonance Engineering)*, 23 B (1): 26-32.

Blümich, B., Anferova, S., **Pechinig, R.**, Pape, H., **Arnold, J.** & C. Clauser, (2004): Mobile NMR for porosity analysis in drill core sections., *J. Geophys. Eng.*, 1, 177-180.

Bartetzko, A., Paulick, H., Iturrino, G. & **Arnold, J.**, (2003): Facies reconstruction of a hydrothermally altered dacitic extrusive sequence: Evidence from geophysical downhole logging data (ODP Leg 193), *Geochemistry Geophysics Geosystems* G³, 4 (10): 24p.

Bartetzko, A., **Pechinig, R.** & J. Wohlenberg, (2003): Interpretation of well-logging data by study lateral variations in young oceanic crust: DSDP/ODP Holes 504B and 896 A, Costa Rica Rift, in press, AAPG methods in Exploration Series, Nr. 13, Chapter 15, p 1-16.

Buysch, A., **Pechinig, R.**, Harms, U. & J. Wohlenberg, (2002): Porosity determination with standard well-logging data. implicatins for the local fluid flow regime of Mauna Kea lava flows (HSDP-2), In: Bückler, Ch. (Hrsg.), *DGG-Mitteilungen, Sonderband III/2002*, 4-12.

Pechinig, R., Haverkamp, S., Wohlenberg, J.; Zimmermann, G. & H. Burkhardt, (1997): Integrated Log Interpretation in the German Continental Deep Drilling Project: Lithology, Porosity, and Fracture Zones.- *J. Geophys. Res.*, 102, 18363-18390.

Tagungsbeiträge und Präsentationen (2003-2013)

Schüller, R., Ziegler, M. & **Mottaghy, D.** (2013): Energetische Einsparpotentiale beim Vereisungsverfahren unter Einfluss einer Grundwasserströmung. In: 9. Österreichische Geotechniktagung mit „Vienna-Terzaghi Lecture“, 24. und 25. Jänner 2013 : Tagungsbeiträge / Hrsg.: Österreichischer Ingenieur- und Architekten-Verein, Wien, 2013, S. 313-324, ISBN 978-3-902450-02-9 (begutachtet).

Kürten, S., Ziegler, M., Ehrenberg, H. & **Mottaghy, D.** (2013): Beschreibung des Einflusses einer Grundwasserströmung auf den Wärmeertrag von flächigen thermo-aktiven Bauteilen. In: 9. Österreichische Geotechniktagung mit „Vienna-Terzaghi Lecture“, 24. und 25. Jänner 2013 : Tagungsbeiträge / Hrsg.: Österreichischer Ingenieur- und Architekten-Verein, Wien, 2013, S. 313-324, ISBN 978-3-902450-02-9 (begutachtet).

A. Fehr, **R. Pechinig**, J. Inwood, J. Lofi, F.P. Bosch, and C. Clauser (2012): Thermophysical properties derived from lab measurements and downhole logging at New Jersey Shallow Shelf (IODP Expedition 313), EGU General Assembly, Wien, April 22-27, EGU2012-12857.

D. Mottaghy, V. Rath, G. Schwamborn (2012): The influence short and long term climate changes on the temperature field at the Lake El'gygytgyn site: results from borehole data and modelling, Poster, EGU General Assembly, Wien, April 22-27, EGU2012-11182.

Pechinig, R., Mottaghy, D., Michalski, A., Klitzsch, N., Streblov, R., Clauser, C. & Müller, D..(2012): Exergetisch optimierte Betriebsführung der Wärme- und Kälteversorgung eines Gebäudes unter Nutzung eines dynamischen Regelungssystems und flexibler Einbindung eines vollständig überwachten Erdwärmesondenfeldes, Vortrag, Geotherm Offenburg, Februar 2012.

Mottaghy, D. (2011): 3D-Modellierung des Untergrundes der Hansestadt Hamburg, Vortrag, 4. Norddeutschen Geothermietagung, Hannover, Oktober 2011.

C. Vogt, G. Marquart, C. Clauser, K. Iwanowski-Strahser, **J. Arnold, D. Mottaghy & R. Pechinig** (2011): A Cooperative Approach to Sedimentary Geothermal Reservoir Modeling, Performance Forecast, and Uncertainty Quantification, International Union of Geodesy and Geophysics (IUGG 2011) General Assembly, Melbourne, Australia.

Mottaghy, D., Pechinig, R., Thomsen, C., Hese, F., Liebsch-Dörschner, T. (2011): Geothermal 3-D modeling Hamburg and surrounding areas: Temperature prediction and reservoir simulation. European Geosciences Union, General Assembly, Wien, 03 - 08 April, EGU2011-8684.

Pechinig, R., Arnold, J., & Mottaghy, D. (2011): Methods to derive statistically proved input parameter for geothermal models: Examples from sedimentary basins and crystalline basement rocks. European Geosciences Union, General Assembly, Wien, 03 - 08 April, EGU2011-5839.

Kosack, C., Rath, V. & **Mottaghy, D.** (2011): Parameter Estimation of the Geo-thermal Reservoir at Soultz-sous-Forêts. European Geosciences Union, General Assembly, Vienna, 03 - 08 April, EGU2011-11244

Vogt, C., Marquart, G., Iwanowski-Strahser, K., Arnold, J., Gnjezda, D., **Mottaghy, D., Pechinig, R.** & Clauser, C. (2011): Integrated Assessment of Geothermal Reservoir Simulation – A Case Study. European Geosciences Union, General Assembly, Vienna, 03 - 08 April, EGU2011-1395.

Mottaghy, D., Pechinig, R., Thomsen, C., Hese, F., Liebsch-Dörschner, T. (2011): Ein neues geothermisches 3-D Modell für die Stadt Hamburg und Umgebung – Planungsgrundlagen für tiefe Geothermieprojekte, Vortrag, Geotherm Offenburg, Februar 2011.

Pechinig, R. & Mottaghy, D. (2010). Geothermal Reservoir Characterization and Modelling - Methods and strategies to derive thermal properties from well data and to improve model input parameter, Technical Workshop, Interreg IVa - Geopotenziale des tieferen Untergrundes im Oberrheingraben (GeORG), November 18, 2010, Freiburg.

Mottaghy, D., Pechinig, R., Taugs, R., Kröger, J., Thomsen, C., Hese, F & Liebsch-Doerschner, T. (2010). Geothermiemodell Hamburg und Umgebung: Temperaturvorhersage und Reservoirsimulation, Geothermiekongress 2010, 17.-19. November 2010, Karlsruhe.

R. Pechinig, D. Mottaghy, J. Arnold, & A. Koch (2010). Thermal Properties of paleozoic rocks from the Rhenish Massif. European Geosciences Union, General Assembly, Vienna, 2 - 7 May 2010, EGU2010-10190

J. Arnold, D. Mottaghy, R. Pechinig, D. Gnjezda, & C. Vogt (2010). MeProRisk - 3-D geothermal reservoir modeling in the North German Sedimentary Basin, European Geosciences Union, General Assembly, Vienna, 2 - 7 May 2010,, EGU2010-10309

D. Mottaghy & G. Schwamborn (2010). Thermal modeling of the temperature field at the Lake El'gygytgyn site. European Geosciences Union, General Assembly, Vienna, 2 – 7 May 2010, EGU2010-7872.

Vogt, **D. Mottaghy**, V. Rath, A. Wolf, **R. Pechinig** & Clauser, C. Quantifying uncertainty in geothermal reservoir modeling. In Proceedings of the World Geothermal Congress (WGC2010), Bali, Indonesia, 25-29 April 2010 (begutachtet).

Mottaghy, D., Pechinig, R., Buik, N. & Simmelink, E. (2010). 3-D Numerical Models for Temperature Prediction and Reservoir Simulation. In Proceedings of the World Geothermal Congress (WGC2010), Bali, Indonesia, 25-29 April 2010. (begutachtet).

Pechnig, R., Mottaghy, D., Arnold, J., Clauser, C. & G. Marquardt (2010). MeProRisk - Methodenentwicklung zur verbesserten Risikoeinschätzung bei der Erkundung und Erschließung tiefer geothermischer Anlagen, Vortrag, Geotherm Offenburg, Februar 2010.

Pechnig, R., Arnold, J., Jorand, R., Koch, A. & C. Clauser (2009). Ergebnisse einer integrierten Analyse von Labor- und Bohrlochmessdaten an Lockersedimenten der Niederrheinischen Bucht und Festgesteinen des Rheinischen Schiefergebirges, Vortrag 5. NRW-Geothermiekonferenz, 17.11.2009, Bochum.

Mottaghy, M, Pechnig, R., Bulk, N. & E. Simmelink (2009). Geothermieprojekt Den Haag - Numerische Simulation zur Reservoircharakterisierung für eine tiefe geothermische Dublette. Vortrag GTV Geothermiekongress 2009 17.-19. November 2009, Bochum.

Pechnig, R., Arnold, J., Jorand, R., Koch, A. & C. Clauser (2009). Ergebnisse einer integrierten Analyse von Labor- und Bohrlochmessdaten an Lockersedimenten der Niederrheinischen Bucht und Festgesteinen des Rheinischen Schiefergebirges, Vortrag 5. NRW-Geothermiekonferenz, 17.11.2009, Bochum.

C. Vogt, **D. Mottaghy,** V. Rath, A. Wolf, **R. Pechnig,** and C. Clauser (2009). Quantifying uncertainties in geothermal energy exploration. European Geosciences Union, General Assembly, Vienna, 19 - 24 April 2009, EGU2009-1434.

J. Arnold, D. Mottaghy, & R. Pechnig, (2009). MeProRisk - Acquisition and Prediction of thermal and hydraulic properties. European Geosciences Union, General Assembly, Vienna, 19 - 24 April 2009, EGU2009-8427

D. Mottaghy, R. Pechnig, G. Willemsen, H. J. Simmelink, and V. Vandeweyer (2009). Geothermal Project Den Haag - 3-D models for temperature prediction and reservoir characterization. European Geosciences Union, General Assembly, Vienna, 19 - 24 April 2009, EGU2009-11862.

Rath, V. & **Mottaghy, D.** (2009). Climate reconstruction from boreholes: depth is not enough. European Geosciences Union, General Assembly, Vienna, 19 - 24 April 2009, EGU2009-9543.

Pechnig, R., Mottaghy, D., Willemsen, G. & H. J. Simmelink, (2009): The Den Haag Geothermal District Heating Project - 3-D Models for Temperature Prediction. GEOTHERM 2009, Offenburg 5.-6. März 2009.

Pechnig, R., Mottaghy, D., Willemsen, G. & H. J. Simmelink, (2008): The Den Haag Geothermal District Heating Project - 3-D Models for Temperature Prediction. GEO2008, DGG and GTV annual meeting, Aachen September 29. – 2. Oktober 2008.

Koch, A., Jorand, R., **Pechnig, R.** & C. Clauser, (2008): Thermal properties of tertiary sediments of the Lower Rhine Basin (Germany). Presentation, annual meeting of European Geophysical Union (EGU), EGU2008-A-08540.

Dijkshoorn, L., Mottaghy, D. & Rath, V. (2008): Paleoclimate near the Kola deep drilling site: a detailed 3-D inverse modeling study. European Geosciences Union, General Assembly, Vienna, EGU2008-A-10713

Mottaghy, D., Majorowicz, J. & Rath, V. (2008) Ground surface temperature histories reconstructed from boreholes in Poland: implications for spatial variability? European Geosciences Union, General Assembly, Vienna, EGU2008-A-05427

Mottaghy, D. & Dijkshoorn, L. (2008): Implementing a new effective finite difference formulation for borehole heat exchangers into a heat transport code, European Geosciences Union, General Assembly, Vienna, EGU2008-A-02169

Mottaghy, D. & L. Dijkshoorn, (2008): Implementing a new effective finite difference formulation for borehole heat exchangers into a heat transport code, Proceedings, 33. Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, California, January 28-30, 2008, <http://pangea.stanford.edu/ERE/pdf/IGAstandard/SGW/2008/mottagh.pdf>.

Pechnig, R. & U. Trautwein-Bruns, (2007): Log Interpretation in the RWTH-1 Borehole. Presentation, DGG Annual Meeting, Aachen, March 2007, S5.

Koch, A., Jorand, R., **Pechnig, R., Mottaghy, D.** & C. Clauser, (2007): Use of Exploration Wells to Improve Geothermal Reservoir Models. Proceedings European Geothermal Congress 2007, Unterhaching, Germany, 30 May-1 June 2007.

Pechnig, R., Mottaghy, D., Koch, A., Jorand, R. & C. Clauser, (2007): Prediction of Thermal Properties for Mesozoic Rocks of Southern Germany. Proceedings European Geothermal Congress 2007, Unterhaching, Germany, 30 May-1 June 2007.

Mottaghy, D., Dijkshoorn, L. & **R. Pechnig,** (2007): Ein neues Werkzeug zur Auslegungsrechnung von Erdwärmesonden - eine effektive Finite-Differenzen Methode, Beitrag "Der Geothermiekongress 2007" Bochum, Germany, 29-31 Oktober 2007.

Jorand, R., **Pechnig, R., Mottaghy, D.**, Koch, A. & C. Clauser, (2007): Determination of thermal and hydraulic Properties for different Lithologies of Southern Germany. European Geosciences Union, General Assembly, Vienna, 15 - 20 April 2007.

Mottaghy, D. & Dijkshoorn, L., (2007): Implementing a new effective finite difference formulation for borehole heat exchangers into a heat transport code, Poster, 67th Annual Meeting of the Deutsche Geophysikalische Gesellschaft March 26 - 29, Aachen.

Dijkshoorn, L. & **R. Pechnig**, (2007): Physical properties of Carboniferous and Devonian Rocks drilled in the RWTH-1 borehole. Presentation, DGG Annual Meeting, Aachen, March 2007, S5.

Mottaghy, D., Kukkonen, I., Rath, V., (2006): Modeling heat transport and fluid flow in periglacial areas, Poster, Sixth International Meeting on Heat Flow and Structure of the Lithosphere, Bykov, Czech Republic, June 5-10

Mottaghy, D., Clauser, C., Rath, V., (2006): Characterizing the influence of latent heat effects on ground surface temperature history inversions, Poster, Sixth International Meeting on Heat Flow and Structure of the Lithosphere, Bykov, Czech Republic, June 5-10.

Hartmann, A., **Pechnig, R.**, Koch, A. & C. Clauser, (2006): Ermittlung thermischer und hydraulischer Gesteinseigenschaften für den flachen und tiefen Untergrund in Deutschland. Geothermische Energie, 51, 4-8.

Mottaghy, D. & V. Rath, (2006): Optimal Regularization for Smooth Paleoclimate Inversions, Poster, 31. General Assembly, European Geophysical Union, 2-7 April 2006, Vienna.

Hartmann, A., **Pechnig, R.** & C. Clauser, (2006): Rock Property Mapping for Improved Planning of Geothermal Installations. Thirty-First Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, California, January 30-February 1, 2006, SGP-TR-179, 2006.

Mottaghy, D. & S. Hurter, (2005): The CO₂Sink Sequestration Project: Modeling fluid-rock interactions in presence of CO₂-rich BRINE, 2005 Euro-conference on Rock Physics and Geomechanics, Oléron Island, France, 18-22 September.

Hartmann, A., Clauser, C. & **R. Pechnig**, (2005): Erstellung statistisch abgesicherter thermischer und hydraulischer Gesteinseigenschaften für den flachen und tiefen Untergrund in Deutschland; Phase 1: Westliche Molasse, Schwäbische Alb und Franken. Geothermische Jahrestagung 2005, Geothermie: Synergie und Effizienz, 16.-17. November 2005 in Unterschleißheim.

Mottaghy, D., & V. Rath, (2005): Heat transfer in the upper crust - paleoclimate and fluid flow near the Kola super-deep borehole, Russia, Poster, 30. General Assembly, European Geophysical Union, 24-29 April 2005, Vienna.

Rath, V. & **D. Mottaghy**, (2005): Paleoclimate on the Kola Peninsula (Russia) from inversion of subsurface temperatures, Poster, 30. General Assembly, European Geophysical Union, 24-29 April 2005, Vienna.

C. Clauser, **Mottaghy, D.** V. Rath, R. Pechnig & A. Hartmann, (2004): Borehole geophysics, petrophysics and geothermics: Log interpretation, measurements, and numerical simulations, The Outokumpu deep drilling project, International Workshop, Espoo, Finland, 2004.

Mottaghy, D., Rath, V. & C. Clauser, (2004): Heat transfer in the upper crust - a case study for the region around the Kola superdeep borehole, Russia, international workshop on "New and Classical Applications of Heat Flow Studies" in Aachen (Germany).

Schellschmidt, R., Popov, Y., Kukkonen, I., Nover, G., Milanovsky, S., Borevsky, L., **Mottaghy, D.** & Clauser, C. (2003): Heat transfer processes in the upper crust – a case study for the region around the Kola super-deep borehole, Russia. XXIII General Assembly of the International Union of Geodesy and Geophysics (IUGG), 30. 6.-11. 7. 2003, Sapporo, Japan.

Rath, V., & **Mottaghy, D.** (2003): Inversion for ground surface temperature histories when permafrost is considered, Poster, 28. General Assembly, European Geophysical Union, 7-11 April 2003, Nice.

Schellschmidt, R., Popov, Y., Kukkonen, I., Nover, G., Milanovsky, S., Borevsky, L., **Mottaghy, D.**, **Clauser, C.** 2003, New heat flow data based on geothermal measurements in the immediate vicinity of the Kola superdeep well SG-3, Poster, 28. General Assembly, European Geophysical Union, 7-11 April 2003, Nice.

Mottaghy, D. & V. Rath, (2003). Implementation of permafrost development in a finite difference heat transport code, Poster, 28. General Assembly, European Geophysical Union, 7-11 April 2003, Nice.