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(785)-532-5418 (voice), (785)-532-5825 (fax), ashesh@ksu.edu (E-mail)<http://www.bae.ksu.edu/watershed/ashesh> (URL)**Book Chapters**

1. Nieber, J.L., R.Z. Dautov, A.G. Egorov, and **A.Y. Sheshukov** (2005) Dynamic capillary pressure mechanisms for instability in gravity-driven flow; review and extension to very dry conditions, In: D.B. Das and S.M. Hassanizadeh (eds), *Upscaling Multiphase Flow in Porous Media; From Pore to Core and Beyond*, Springer, The Netherlands, pp. 147-172.
2. Nieber, J.L., **A.Y. Sheshukov**, R.Z. Dautov, and A.G. Egorov (2003) Non-equilibrium model for gravity-driven fingering in water repellent soils: Formulation and 2-D simulations, in Book: *Soil water repellency: Occurrence, Consequences and Amelioration*, Elsevier, Ch. 23, pp. 245-258.

Refereed Publications

1. **Sheshukov, A.Y.**, P. Daggupati, K.R. Douglas-Mankin, and M.-C. Lee. (2011) High Spatial Resolution Soil Data for Watershed Modeling: 1. Development of a SSURGO-ArcSWAT Utility. *Journal of Natural and Environmental Sciences* (in review)
2. **Sheshukov, A.Y.**, P. Daggupati, and K.R. Douglas-Mankin. (2011) High Spatial Resolution Soil Data for Watershed Modeling: 2. Assessing Impacts on Watershed Hydrologic Response. *Journal of Natural and Environmental Sciences* (in review)
3. **Sheshukov, A.Y.**, K.R. Douglas-Mankin, P. Daggupati, and S. Sinnathamby (2011) Pasture BMP Effectiveness using a HRU-based Sub-field Approach in SWAT, *Journal of Environmental Management* (in revision)
4. Douglas-Mankin, K.R., P. Daggupati, **A.Y. Sheshukov**, and P.L. Barnes (2011) Paying for sediment: Field-scale conservation practice targeting, funding, and assessment using SWAT, *Journal of Soil & Water Conservation* (in revision)
5. **Sheshukov, A.Y.**, C. Siebenmorgen, and K.R. Douglas-Mankin (2011) Seasonal and Annual Impacts Of Climate Change On Watershed Response Using Ensemble Of Global Climate Models, *Transactions of the ASABE*, 54(6).
6. **Sheshukov, A.Y.** and J.L. Nieber (2011) Freezing of Non-heaving Unsaturated Soils: Model Formulation and Similarity Solution, *Water Resources Research*, 47, W11519. DOI:10.1029/2011WR010512
7. Daggupati, P., K.R. Douglas-Mankin, **A.Y. Sheshukov**, P.L. Barnes, and D.L. Devlin (2011) Field-Level Targeting Using Swat: Mapping Output From HRUs to Fields And Assessing Limitations of GIS Input Data, *Transactions of the ASABE*, 54(2), 74-88.
8. Dolph, C.L., **A.Y. Sheshukov**, C.J. Chizinski, B. Vondracek, and B. Wilson (2010) The Index of Biological Integrity and the Bootstrap: Can Random Sampling Error Affect Stream Impairment Decisions? *Ecological Indicators*, 10(2). 527-537. DOI:10.1016/j.ecolind.2009.10.001
9. Nieber, J.L., R. Dautov, A. Egorov, and **A.Y. Sheshukov** (2005) Dynamic capillary pressure mechanism for instability in gravity-driven flows; Review and extension to very dry conditions, *Transport in Porous Media*, 1-2, 151-172.
10. Egorov, A., R. Dautov, J.L. Nieber, and **A.Y. Sheshukov** (2003) Stability analysis of gravity-driven infiltrating flow, *Water Resources Research*, 39, 1266. DOI:10.1029/2002WR001886
11. **Sheshukov, A.Y.** and A.G. Egorov (2002) Frozen barrier evolution in saturated porous media, *Advances in Water Resources*, 25(6), 681-689.
12. **Sheshukov, A.Y.** (1996) Heat and Mass Transfer in Frozen Soils: Impact of concentrated aqueous solution on frozen soils and phenomenon of regelation. PhD Thesis, Kazan State University, Kazan, Russia (in Russian).

13. Egorov, A.G., A. V. Kosterin, and **A.Y. Sheshukov** (1995) One-dimensional problems of frozen soil thawing due to solution seepage, *Fluid Dynamics*, 30, 767-776.
14. Egorov, A.G., A. V. Kosterin, and **A.Y. Sheshukov** (1993) Mathematical modelling of the motion of a solid inclusion in a nonisothermal block of ice, *Colloid Journal of Russian Academy of Sciences*, 55, 350-359.
15. **Sheshukov, A.Y.** (1991) Advancement of mineral particles through the ice. MS Thesis, Kazan State University, Kazan, Russia (in Russian).

Journal Articles in Preparation

1. **Sheshukov, A.Y.**, K.R. Douglas-Mankin, C. Siebenmorgen, and B.N. Wilson. Generating Watershed-specific Daily Weather Data for Hydrologic Assessment: Comparison of Methods, *Hydrological Processes*
2. **Sheshukov, A.Y.**, A. Egorov, and J. Nieber. Sorption Wave Propagation from An Instantaneous Solute Source With Equilibrium Adsorption-Desorption Hysteresis, *Journal of Contaminant Hydrology*
3. **Sheshukov, A.Y.**, R. Daanen, J. Nieber, and M. Darrow. Model for water movement toward a slow advancing freezing front in heaving soils, *Vadose Zone Journal*.

Conference Papers

1. Wilson, B.N., and **A.Y. Sheshukov** (2011) Precipitation Parameters of Stochastic Weather Models for a Changing Climate, *ASABE International Symposium on Erosion and Landscape Evolution*, Anchorage, AK, 8 p.
2. Siebenmorgen, C.B., **A.Y. Sheshukov**, and K.R. Douglas-Mankin (2010) Impacts Of Climate Change On Hydrologic Indices In A Northeast Kansas Watershed. *TMDL 2010: Watershed Management to Improve Water Quality*. Pub No. 711P0710cd. ASABE: St. Joseph, MI
3. Daggupati, P., K.R. Douglas-Mankin, **A.Y. Sheshukov**, and P.L. Barnes (2010) Targeting BMP placement using SWAT sediment yield estimates for field-scale BMPs. *TMDL 2010: Watershed Management to Improve Water Quality*. Pub No. 711P0710cd. ASABE: St. Joseph, MI
4. Daggupati, P., K.R. Douglas-Mankin, **A.Y. Sheshukov**, and P.L. Barnes (2010) Monitoring and Estimating Ephemeral Gully Erosion using Field Measurements and GIS. *ASABE Annual International Meeting*, Paper No. 10-9663. ASABE: St. Joseph, MI.
5. Wilson, B.N., **A.Y. Sheshukov**, and A. Mendez (2009) Simulation of Rock Infiltration Systems. *ASABE Annual International Meeting*, Paper No. 09-6995, ASABE: St. Joseph, MI.
6. Wilson, B., and **A.Y. Sheshukov** (2006) A process based erosion and sediment model for construction sites. *ASCE Conf. Proc.* 200, 415. DOI:10.1061/40856(200)415

Proceedings Publications

1. **Sheshukov, A.Y.**, P. Daggupati, M.-C. Lee, and K. Douglas-Mankin (2009) ArcMap Tool for Pre-processing the SSURGO Soil Database for ArcSWAT. In: *Proceedings of the 5th International SWAT Conference*, Texas Water Resources Institute, TR-356, 116-123.
2. **Sheshukov, A.Y.**, K. Douglas-Mankin, and P. Daggupati (2009) Evaluating the Effectiveness of Unconfined Livestock BMPs using SWAT. In: *Proceedings of the 5th International SWAT Conference*, Texas Water Resources Institute, TR-356, 204-211.
3. Daggupati P., **A.Y. Sheshukov**, K. Douglas-Mankin, P. Barnes, and D. Devlin (2009) Field-Scale Targeting of Cropland Sediment Yields using ArcSWAT. In: *Proceedings of the 5th International SWAT Conference*, Texas Water Resources Institute, TR-356, 76-83.
4. Dautov, R., A. Egorov, J. Nieber, and **A.Y. Sheshukov** (2002) Simulation of two-dimensional gravity-driven unstable flow. In: *Proceedings of 14th International Conference on Computational Methods in Water Resources*, Delft, The Netherlands, 1, 9-16.

5. Egorov, A., R. Dautov, J. Nieber, and **A.Y. Sheshukov** (2002) Stability analysis of traveling wave solution for gravity-driven flow. In: *Proceedings of 14th International Conference on Computational Methods in Water Resources*, Delft, The Netherlands, 1, 120-127.
6. **Sheshukov, A.Y.**, and A.G. Egorov (1998) Numerical modeling of coupled moisture, solute and heat transport in frozen soils, In: *Proceedings of 7th International Conference on Permafrost*, Yellowknife, Canada, 987-992.
7. Egorov, A.G., and **A.Y. Sheshukov** (1997) Solute movement in saturated frozen soil: self-similar solutions, In: *Proceedings of the 14th International School on Models in Continuum Mechanics*, Zhukovsky, Russia, 68-74 (in Russian).
8. Egorov, A.G., and **A.Y. Sheshukov** (1996) Freezing of porous medium due to moving solute. In: *Proceedings of Workshop "Theory of the mesh methods for non-linear boundary-value problems"*, Kazan, Russia, 53-55 (in Russian).

Extension Publications

1. Douglas-Mankin, K.R., P. Daggupati, **A.Y. Sheshukov**, P. Barnes, D. Devlin, and N. Nelson (2011) *Cheney Lake Watershed: Erosion from ephemeral gullies*. Publication MF-3030. Kansas State University, Manhattan, KS.

Technical Reports

1. Douglas-Mankin, K.R., **A.Y. Sheshukov**, J. Roe, R.M. Wilson, and J.C. Leatherman (2011) Kansas Watershed Restoration and Protection Strategy (WRAPS) Project – Milford Lake Watershed Stakeholder Leadership Team Development and Assessment Support. Final Report. KDHE Project No. 2004-0034. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS.
2. Douglas-Mankin, K.R., **A.Y. Sheshukov**, J. Roe, R.M. Wilson, and J.C. Leatherman (2011) Kansas Watershed Restoration and Protection Strategy (WRAPS) Project – Lower Big Blue River and Lower Little Blue River Watersheds Stakeholder Leadership Team Development and Assessment Support. Final Report. KDHE Project No. 2004-0032. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS.
3. Douglas-Mankin, K.R., **A.Y. Sheshukov**, J. Roe, R.M. Wilson, and J.C. Leatherman (2011) Kansas Watershed Restoration and Protection Strategy (WRAPS) Project – Neosho River Watershed Stakeholder Leadership Team Development and Assessment Support. Final Report. KDHE Project No. 2004-0044. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS.
4. Douglas-Mankin, K.R., **A.Y. Sheshukov**, J. Roe, R.M. Wilson, and J.C. Leatherman (2011) Kansas Watershed Restoration and Protection Strategy (WRAPS) Project – Toronto Reservoir Watershed Stakeholder Leadership Team Development and Assessment Support. Final Report. KDHE Project No. 2007-0031. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS.
5. Wilson, R., J. Roe, S. Brown, and **A.Y. Sheshukov** (2011) Watershed Restoration and Protection Strategy (WRAPS) for Upper and Lower Cottonwoods Watershed. Final Report: KDHE Project No. 2007-0028. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS. 191 p.
6. Wilson, R., J. Roe, S. Brown, and **A.Y. Sheshukov** (2011) Watershed Restoration and Protection Strategy (WRAPS) for Milford Reservoir. Final Report: KDHE Project No. 2004-0034. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS. 158 p.
7. Wilson, R., J. Roe, S. Brown, and **A.Y. Sheshukov** (2011) Watershed Restoration and Protection Strategy (WRAPS) for Upper Neosho Watershed. Final Report: KDHE Project No. 2004-0044. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS. 179 p.
8. Wilson, R., J. Roe, S. Brown, and **A.Y. Sheshukov** (2010) Watershed Restoration and Protection Strategy (WRAPS) for Middle Neosho Watershed. Final Report: KDHE Project No. 2004-0044. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS. 106 p.
9. Wilson, R., J. Roe, S. Brown, and **A.Y. Sheshukov** (2010) Watershed Restoration and Protection Strategy (WRAPS) for the Lower Big Blue River and Lower Little Blue River Watersheds. Final Report:

- KDHE Project No. 2004-0032. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS. 173 p
10. Wilson, R., J. Roe, S. Brown, and **A.Y. Sheshukov** (2010) Watershed Restoration and Protection Strategy (WRAPS) for the Toronto Reservoir Watershed. Final Report: KDHE Project No. 2007-0031. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS. 130 p.
 11. Wilson, R., J. Roe, S. Brown, and **A.Y. Sheshukov** (2010) Watershed Restoration and Protection Strategy (WRAPS) for the Neosho Headwaters Watershed. Final Report: KDHE Project No. 2007-0028. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS. 126 p.
 12. **Sheshukov A.Y.**, K. Douglas-Mankin, and S. Perkins (2010) Modeling of John Redmond Watershed with Soil and Water Assessment Tool (SWAT), *Final Report*, Part of John Redmond Dam and Reservoir, Kansas Watershed Feasibility Study, Kansas Water Office, Topeka, KS.
 13. Douglas-Mankin, K.R., **A.Y. Sheshukov**, J. Roe, R.M. Wilson, and J.C. Leatherman (2010) Kansas Watershed Restoration and Protection Strategy (WRAPS) Project – Oologah Lake Watershed Stakeholder Leadership Team Development and Assessment Support. Final Report. KDHE Project No. 2006-0059. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS.
 14. Douglas-Mankin, K.R., **A.Y. Sheshukov**, J. Roe, R.M. Wilson, and J.C. Leatherman (2010) Kansas Watershed Restoration and Protection Strategy (WRAPS) Project – Elk City Lake Watershed Assessment. Final Report. KDHE Project No. 2007-0061. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS.
 15. Douglas-Mankin, K.R., **A.Y. Sheshukov**, J. Roe, R.M. Wilson, and J.C. Leatherman (2010) Kansas Watershed Restoration and Protection Strategy (WRAPS) Project – Big Hill Creek/ Big Hill Lake Watershed Assessment. Final Report. KDHE Project No. 2006-0073. Kansas Dept. of Health and Environment, Bureau of Water. Topeka, KS.
 16. Wilson, B.N., **A.Y. Sheshukov**, and A. Mendez (2008) Design Tool for Controlling Runoff and Sediment from Highway Construction, *Minnesota Department of Transportation, Report MN/RC-2008-35*, 109 p.
 17. Wilson, B.N., **A.Y. Sheshukov**, and R. Pulley (2006) Erosion risk assessment tool for construction sites, *Minnesota Department of Transportation, Report MN/RC-2006-27*, 72 p.
 18. Nieber, J., **A.Y. Sheshukov**, R. Dautov, and A. Egorov (2002) Non-equilibrium Model for Gravity-Driven Fingering in Water Repellent Soils: Formulation and 2-D Simulations, *U.S. Army High Performance Computing Research Center Tech. Report 2002-131*, 15 p.
 19. Dautov, R., A. Egorov, J. Nieber, and **A.Y. Sheshukov** (2002) Simulation of two-dimensional gravity-driven unstable flow, *U.S. Army High Performance Computing Research Center Tech. Report 2002-102*, 8 p.
 20. Egorov, A., R. Dautov, J. Nieber, and **A.Y. Sheshukov** (2001) Stability analysis of traveling wave solution for gravity-driven flow, *U.S. Army High Performance Computing Research Center Tech. Report 2001-108*, 8 p
 21. **Sheshukov, A.Y.**, and A.G. Egorov (2001) Numerical modeling for evolution of frozen barrier in porous media, *U.S. Army High Performance Computing Res. Center Tech. Report 2001-007*, 22 p.
 22. Egorov, A.G., and **A.Y. Sheshukov** (1995) Freezing of porous media induced by aqueous solution flow, *VINITI Preprint 2513 B95*, Moscow, 35 p. (in Russian).

Presentations at Scientific Meetings

1. **Sheshukov, A.Y.**, C.B. Siebenmorgen, K.R. Douglas-Mankin, and B.N. Wilson (2011) A Methodology of Assessing Future Hydrologic and Water-quality Impacts Using Statistical Downscaling of Ensembles of Global Circulation Models, *2011 ASABE Annual International Meeting*, Louisville, KY
2. **Sheshukov, A.Y.**, S. Perkins, and K.R. Douglas-Mankin (2010) Evaluation of Sedimentation Sources in East-Central Kansas with SWAT, *2010 ASABE Annual International Meeting*, Pittsburgh, PA
3. **Sheshukov, A.Y.**, and K.R. Douglas-Mankin (2010) Climate Change and Watershed Assessment within the WRAPS Program in Kansas, *2010 USDA Land Grant & Sea Grant National Water Conf.*

4. Siebenmorgen, C.B., **A.Y. Sheshukov**, and K.R. Douglas-Mankin (2010) Assessment of Impacts of Future Climate Change Scenarios on Hydrologic Regimes in One Northeast Kansas Watershed, *27th Annual "Water and the Future of Kansas" Conference*, Topeka, KS
5. **Sheshukov, A.Y.**, K.R. Douglas-Mankin, J. Roe, H. George, and P. Daggupati (2010) Rapid Assessment of Cost-Effectiveness of Unconfined Livestock BMP Bids, *2010 USDA Land Grant & Sea Grant National Water Conference*, Hilton Head, NC
6. Daggupati P., K.R. Douglas-Mankin, **A.Y. Sheshukov**, and P.L. Barnes (2010) Monitoring and Estimating Ephemeral Gully Erosion using Field Measurements and GIS, *2010 USDA Land Grant & Sea Grant National Water Conference*, Hilton Head, NC
7. Daggupati P., K.R. Douglas-Mankin, **A.Y. Sheshukov**, P.L. Barnes, D.L. Devlin, and R. Graber (2010) Field Scale Targeting of Sediment Yields using ArcSWAT in Black Kettle Creek Watershed, *2010 USDA Land Grant & Sea Grant National Water Conference*, Hilton Head, NC
8. **Sheshukov, A.Y.**, K.R. Douglas-Mankin, and B.N. Wilson (2009) Watershed Restoration and Protection under Changing Climate Conditions in Kansas, *AGU Fall Meeting, San Francisco, CA*
9. Dautov, R.Z., Egorov, A.G., Nieber, J.L., and **A.Y. Sheshukov** (2004) Modeling conditional stability of gravity-driven unsaturated infiltrating flows using a non-equilibrium capillary pressure-saturation relation. *Eos Trans. AGU*, 85 (47), Fall Meeting Suppl., Abstract H33B-0469.
10. Nieber, J., Dautov, R., Egorov, A., and **A.Y. Sheshukov** (2003) Dynamic capillary pressure mechanism for instability in gravity-driven flows; Overview of progress and quantification of model parameters. *Eos Trans. AGU*, 84 (46), Fall Meeting Suppl., Abstract H22J-02.
11. Nieber, J., Dautov, R., Egorov, A., and **A.Y. Sheshukov** (2003) Dynamic capillary pressure mechanism for instability in gravity-driven flows; Overview of progress and quantification of model parameters. *European Science Foundation (ESF) Exploratory Workshop*, Delft University of Technology, The Netherlands.
12. **Sheshukov, A.Y.**, Nieber, J.L., Egorov, A.G., Grant, S.A., and I.K. Iskandar (2001) Numerical and self-similar solutions for freezing of non-heaving porous media. *Eos Trans. AGU*, 82 (47), Fall Meeting Suppl., Abstract H22B-0360, 2001.
13. **Sheshukov, A.Y.**, Egorov, A. (2001) Freezing of liquid flow by a chain of freeze pipes. *Sixth SIAM Conference on Mathematical and Computation Issues in the Geosciences*, 2001.
14. **Sheshukov, A.Y.** (2001) Freezing of non-heaving porous media, *Invited Presentation in Department of Atmospheric Sciences, University of North Dakota, Grand Forks, ND*
15. **Sheshukov, A.Y.**, Nieber, J.L., Grant, S.A., and Iskandar, I.K. (2000) Thermally driven liquid and water vapor transport in unsaturated porous media: Mathematical formulation and numerical application. *Eos Trans. AGU*, 81(48), Fall Meeting Suppl., Abstract H12A-06, 2000.
16. **Sheshukov, A.Y.** (1999) Formation of ice-formed barrier induced by solute flow in ground. *Environmental Mathematical Modeling and Numerical Analysis International Conference*, Rostov-on-Don, Russia, 1999.

Extension and Outreach Presentations

1. **Sheshukov, A.Y.**, Daggupati P., and K.R. Douglas-Mankin (2011) Field level targeting using SWAT: mapping output from HRUs to field and assessing limitations of GIS input data, *Heartland Regional Water Coordination Initiative webcast*.
2. K.R. Douglas-Mankin, **A.Y. Sheshukov**, and C.B. Siebenmorgen (2010) Climate Change Impacts on Watersheds in Kansas, *Invited presentation*, KDHE, Topeka, KS
3. Daggupati, P., K.R. Douglas-Mankin, **A.Y. Sheshukov**, P.L. Barnes, and D.L. Devlin (2010) Targeting Agricultural Fields and BMP Implementation using ArcSWAT in Black Kettle Creek Watershed in South Central Kansas, *Heartland Regional Water Coordination Initiative webcast*.
4. **Sheshukov, A.Y.**, S. Perkins, and K.R. Douglas-Mankin (2009) Calibration Study of John Redmond Watershed, Kansas Water Office, *Topeka, KS*

5. Roe, J. and **A.Y. Sheshukov** (2009) Using a BMP Auction for Targeting in Kansas, *Heartland Regional Cost Effectiveness of BMPs and CRP Conversion to Cropland Workshop*, June 9-11, 2009
6. **Sheshukov, A.Y.** (2009) Marais de Cygnes Basin Targeted Watershed Grant Management Committee Meeting, KDHE and EPA Region 7, Adrian, MO (4 presentations)
7. **Sheshukov, A.Y.** (2009) Grand Lake Watershed Planning Committee, KDHE and EPA Regions 6, 7, Joplin, MO
8. **Sheshukov, A.Y.** (2008) Watershed Modeling in Kansas, *Invited Presentation at Kansas Environmental Leadership Program*, Hutchinson, KS
9. **Sheshukov, A.Y.** (2008-2010) Tuttle Creek WRAPS SLT Meeting, Marysville, KS (2 presentations)
10. **Sheshukov, A.Y.** (2008-2010) Milford Lake WRAPS SLT Meeting, Belleville, KS and Clay Center, KS (4 presentations)
11. **Sheshukov, A.Y.** (2010-2011) Delaware WRAPS SLT Meeting, Sabetha, KS (1 presentation)
12. **Sheshukov, A.Y.** (2008-2010) Upper Neosho WRAPS SLT Meeting, Iola, KS (3 presentations)
13. **Sheshukov, A.Y.** (2008-2010) Middle Neosho WRAPS SLT Meeting, Parsons, KS (3 presentations)
14. **Sheshukov, A.Y.** (2008-2010) Neosho Headwaters WRAPS SLT Meeting, Emporia, KS (3 presentations)
15. **Sheshukov, A.Y.** (2008-2010) Cottonwood WRAPS SLT Meeting, Marion, KS and Cottonwood Falls, KS (4 presentations)
16. **Sheshukov, A.Y.** (2008-2010) Toronto Lake WRAPS SLT Meeting, Toronto, KS (3 presentations)

Invited Research Presentations

1. Nieber, J.L. and **A.Y. Sheshukov** (2005) Various solutions for freezing of porous media, *Invited Presentation at Saint Anthony Falls Laboratory, University of Minnesota, Minneapolis, MN*
2. **Sheshukov, A.Y.** (2002) Numerical and self-similar solutions for freezing of non-heaving porous media, *Invited Presentation at the U.S. Army Cold Regions Research Engineering Laboratory, Hanover, NH*
3. Nieber, J.L., and **Sheshukov, A.Y.** (2002) Gravity-driven flow: Stability analysis and 2-D simulations, *Invited Presentation at Environmental Engineering Department, Cornell University, NY*
4. **Sheshukov, A.Y.** (2000) Coupled heat, water, and solute transport in saturated and unsaturated porous media with phase change, *Invited Presentation at U.S. Army Cold Regions Research Engineering Laboratory, Hanover, NH*