Stanford

Daniel Tartakovsky

Professor of Energy Science Engineering

Energy Science & Engineering

Curriculum Vitae available Online

Bio

ACADEMIC APPOINTMENTS

- Professor, Energy Science & Engineering
- Member, Bio-X
- Member, Wu Tsai Human Performance Alliance
- Member, Institute for Computational and Mathematical Engineering (ICME)
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Staff Scientist, Institute of Mathematics and Mechanics, Kazan State University, Kazan, Russia, (1990-1993)
- Technical Staff Member, Computer Research and Applications Group, CCS Division, Los Alamos National Laboratory, (1999-2000)
- Technical Staff Member and Team Leader (Multiscale Analysis Team, since 9/2004), Mathematical Modeling and Analysis Group, Theoretical Division, Los Alamos National Laboratory, (2000-2007)
- Adjunct Associate Professor, Department of Hydrology and Water Resources, The University of Arizona, Tucson, (2001-2004)
- Associate Professor, Department of Mechanical and Aerospace Engineering, University of California, San Diego, (2004-2008)
- Professor, Department of Mechanical and Aerospace Engineering, University of California, San Diego, (2008-2016)
- Professor, Department of Energy Resources Engineering, Stanford University, (2016- present)

HONORS AND AWARDS

- Foreign Member, Accademia delle Scienze, Istituto di Bologna (Sezione: Scienze Tecniche), Italy (2015)
- Chutian Scholar Chair Professor, Three Gorges University, People's Republic of China (PRC) (2012)
- Travel award, State Administration of Foreign Expert Affairs, PRC (2010)
- The 1999 Editors' Citation for Excellence in Refereeing for Water Resources Research, EOS, 81(49), p. 598, December 5, 2000 (2000)
- Travel award - The framework of the short-term mobility program, Italy, Italian Centro Nazionale delle Ricerche (CNR), (1999 & 2000)
- Award, Special Fund for the Award of Personal Scholarships and Grants to Gifted Young Academics, Novosibirsk, Russia (1993)
- Award, All-Union Student Research Conference in Mathematics and Mechanics, Moscow, USSR (1991)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Associate Editor, SIAM Journal on Scientific Computing (SISC) (2012 - present)
- Associate Editor, SIAM/ASA Journal on Uncertainty Quantification (2012 - present)
- Associate Editor, Water Resources Research (2010 - present)

- Member of Editorial Board, International Journal for Uncertainty Quantification (2010 - present)
- Associate Editor, Stochastic Environmental Research and Risk Assessment (2007 - present)
- Guest Editor, Computing in Science and Engineering (2007 - 2007)
- Guest Editor, Computing in Science and Engineering (2005 - 2005)
- Member of Editorial Board, Advances in Water Resources (2004 - present)
- Editor, Reviews of Geophysics (2001 - 2010)

PROFESSIONAL EDUCATION

- Ph.D., Department of Hydrology and Water Resources, The University of Arizona, Tucson , Hydrology (1996)
- M.Sc., Department of Mathematics and Mechanics, Kazan State University, Russia (Summa Cum Laude) , Applied Mathematics/Fluid Mechanics (1991)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Environmental fluid mechanics:

Subsurface flow and contaminant transport, multiphase flow, groundwater hydrology, reservoir simulations, well hydraulics, surface-water/groundwater interactions, inverse modeling, subsurface imaging, decisions under uncertainty, geothermal energy.

Applied and computational mathematics:

Mathematical modeling of complex systems (electrochemistryfor energy storage, design of nano-porous materials), uncertainty quantification, probabilistic risk assessment, stochastic partial differential equations, hybrid numerical algorithms, spatial statistics, data assimilation.

Biomedical modeling:

Blood flow, microcirculation, intracellular and intercellular transport, bioinformatics, computational cell biology, hemodynamics, chemotaxis.

Teaching

COURSES

2026-27

- Applied Mathematics in Sustainability: ENERGY 281 (Win)

2025-26

- Applied Mathematics in Sustainability: ENERGY 281 (Win)

2024-25

- Applied Mathematics in Sustainability: ENERGY 281 (Win)
- Uncertainty Quantification in Data-Centric Simulations: ENERGY 160, ENERGY 260 (Spr)

2023-24

- Applied Mathematics in Sustainability: ENERGY 281 (Win)
- Uncertainty Quantification in Data-Centric Simulations: ENERGY 160, ENERGY 260 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Guido Di Federico, Lama El Halabi, Muhammad Aadil Khan, Filippos Kostakis, Changgyun Son, Gowri Subedar, Wenchao Teng, Dang Ton, Teja Tripuraneni

Doctoral Dissertation Advisor (AC)

Alexander Kiral, Nik Leuenberger, Gary Li, Mandy Lu, Adrienne Propp, Alec Shelley, Apoorv Srivastava, Jonathan Thompson, Charles Yang

Master's Program Advisor

Mohammed Alahmed, Erick Rodriguez

Doctoral Dissertation Co-Advisor (AC)

Xiaoyu Yang

Doctoral (Program)

Zhibo Dai, Ciro Guimaraes, Naoki Sakai, Kongphop Wongpattananukul, Kaiyuan Zhang

Publications

PUBLICATIONS

- **Regional surrogates for predictive control of digital twins** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Zhang, Y., Tartakovsky, D. M.
  2026; 557
- **Transport-Limited Interfacial Electrochemistry in Porous Electrodes** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
  Yang, X., Tartakovsky, D. M.
  2026; 173 (13)
- **Computable kinetic defect measure for scalar hyperbolic conservation laws** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Srivastava, A., Tartakovsky, D. M.
  2026; 564
- **In- Place Volume Estimation: The Role of Downhole Temperature Data** *SPE JOURNAL*
  Guimaraes, C. S., Galvao, M. S., Horne, R. N., Tartakovsky, D. M.
  2026; 31 (7): 4755-4776
- **Efficient approach to uncertainty quantification for emergency well planning under data scarcity** *ADVANCES IN WATER RESOURCES*
  Chen, S., Hsu, K., Ke, C., Chen, N., Tartakovsky, D. M.
  2026; 215
- **Universality Class of Ion-Intercalation Models.** *The journal of physical chemistry letters*
  Yang, C. F., Cui, Y., Tartakovsky, D. M.
  2026
- **CODE: A GLOBAL APPROACH TO ODE DYNAMICS LEARNING** *JOURNAL OF MACHINE LEARNING FOR MODELING AND COMPUTING*
  Wildt, N., Tartakovsky, D. M., Oladyshkin, S., Nowak, W.
  2026; 7 (2): 73-105
- **Effects of wall roughness on coupled flow and heat transport in fractured media** *JOURNAL OF FLUID MECHANICS*
  Lenci, A., Meheust, Y., Klepikova, M., Di Federico, V., Tartakovsky, D. M.
  2026; 1032
- **Electrochemical Models of Multi-Unit Lithium Batteries Under Thermal Gradient** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
  Yang, X., Cui, Y., Tartakovsky, D. M.
  2026; 173 (5)
- **Method of distributions for transient flow in porous media with uncertain properties** *ADVANCES IN WATER RESOURCES*
  Tripuraneni, S., Tartakovsky, D. M., Tchelepi, H. A.

2026; 209

- **Two-Stage Wildlife Event Classification for Edge Deployment.** *Sensors (Basel, Switzerland)*
  Viswanathan, A. S., Bock, A., Bent, Z., Peyton, M. A., Tartakovsky, D. M., Santos, J. E.
  2026; 26 (4)
- **Estimation of battery core temperature from indirect observations and models with error** *JOURNAL OF POWER SOURCES*
  Yang, X., Tartakovsky, D. M.
  2026; 664
- **DISCOVERY OF PROBABILISTIC DIRICHLET-TO-NEUMANN MAPS ON GRAPHS** *SIAM JOURNAL ON SCIENTIFIC COMPUTING*
  Propp, A. M., Actor, J. A., Walker, E., Owhadi, H., Trask, N., Tartakovsky, D. M.
  2026; 48 (2): C191-C215
- **GAUSSIAN-PROCESSMODELS OFPOPULATION DYNAMICS** *JOURNAL OF MACHINE LEARNING FOR MODELING AND COMPUTING*
  Li, L., Xiu, I., Tartakovsky, D. M.
  2026; 7 (1): 25-49
- **FOURIER NEURAL OPERATOR SURROGATE OF LITHIUM-ION BATTERY MODELS** *JOURNAL OF MACHINE LEARNING FOR MODELING AND COMPUTING*
  Viswanathan, A., Yang, X., Tartakovsky, D. M.
  2026; 7 (1): 51-68
- **INTEGRAL KERNEL METHODS FOR NONLINEAR PARABOLIC-ELLIPTIC SYSTEMS** *SIAM JOURNAL ON SCIENTIFIC COMPUTING*
  Monteiro, H. B. N., Tartakovsky, D. M.
  2026; 48 (2): A958-A983
- **Transfer learning of neural surrogates on multifidelity groundwater simulations** *ADVANCES IN WATER RESOURCES*
  Chiofalo, A., Ciriello, V., Tartakovsky, D. M.
  2025; 206
- **Electrochemical multilayer perceptron for lithium batteries** *JOURNAL OF POWER SOURCES*
  Yang, X., Tartakovsky, D. M.
  2025; 659
- **Optimized Particle Porosity to Alleviate Diffusion-Induced Stresses in High-Capacity Electrodes** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
  Joshi, S. A., Tchelepi, H. A., Tartakovsky, D. M.
  2025; 172 (12)
- **Multipoint Correlations in Poisson Media.** *Physical review letters*
  Shelley, A., Olson, A., Geraci, G., Tartakovsky, D. M.
  2025; 135 (15): 156101
- **Microkinetic Models of Electrochemistry: Assumptions, Limitations, and Failures** *JOURNAL OF PHYSICAL CHEMISTRY C*
  Yang, C. F., Cui, Y., Tartakovsky, D. M.
  2025
- **Generalizable models of magnetic hysteresis via physics-aware recurrent neural networks** *COMPUTER PHYSICS COMMUNICATIONS*
  Chandra, A., Kapoor, T., Daniels, B., Curti, M., Tiels, K., Tartakovsky, D. M., Lomonova, E. A.
  2025; 314
- **Data-aware forecast of harmful algal blooms with model error.** *Water research*
  Cheng, M., Sheshukov, A. Y., Wang, P., Tartakovsky, D. M.
  2025; 286: 124201
- **Impact of Boulders and Boulder-Induced Morphology on Oxic Volume of the Hyporheic Zone of Plane-Bed Rivers** *WATER RESOURCES RESEARCH*
  Adler, K. E., Monsalve, A., Reeder, W. J., Yager, E., Tartakovsky, D. M., Blois, G., Tonina, D.
  2025; 61 (7)

- **High-precision geosteering via reinforcement learning and particle filters** *COMPUTATIONAL GEOSCIENCES*
  Muhammad, R., Srivastava, A., Alyaev, S., Bratvold, R. B., Tartakovsky, D. M.
  2025; 29 (2)
- **Dual-Continuum Models of Electrochemical Transport in Porous Electrodes** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
  Yang, X., Tartakovsky, D. M.
  2025; 172 (2)
- **TRANSFER LEARNING ON MULTI-DIMENSIONAL DATA: A NOVEL APPROACH TO NEURAL NETWORK-BASED SURROGATE MODELING** *JOURNAL OF MACHINE LEARNING FOR MODELING AND COMPUTING*
  Propp, A. M., Tartakovsky, D. M.
  2025; 6 (2): 13-27
- **INFORMATION WORTH AND ASSIMILATION OF BINARY DATA** *SIAM JOURNAL ON SCIENTIFIC COMPUTING*
  Srivastava, A., Kang, W., Tartakovsky, D. M.
  2025; 47 (5): A3017-A3037
- **AI-ENABLED CARDIOVASCULAR MODELS TRAINED ON MULTIFIDELITY SIMULATIONS DATA** *JOURNAL OF MACHINE LEARNING FOR MODELING AND COMPUTING*
  Chiofalo, A., Careddu, L., Ciriello, V., Tartakovsky, D. M.
  2025; 6 (3): 1-17
- **DISCOVERY OF LINEAR REPRESENTATIONS FOR NONAUTONOMOUS TRANSLATION-INVARIANT PROBLEMS** *SIAM JOURNAL ON SCIENTIFIC COMPUTING*
  Zhao, H., Tartakovsky, D. M.
  2025; 47 (4): A2074-A2097
- **Non-equilibrium thermal models of lithium batteries** *JOURNAL OF POWER SOURCES*
  Yang, X., Li, W., Um, K., Tartakovsky, D. M.
  2024; 623
- **Neural Differential Equation-Based Two-Stage Approach for Generalization of Beam Dynamics** *IEEE TRANSACTIONS ON INDUSTRIAL INFORMATICS*
  Kapoor, T., Wang, H., Stamou, A., Sayed, K., Nunez, A., Tartakovsky, D. M., Dollevoet, R.
  2024
- **Dynamic mode decomposition of GRACE satellite data** *ADVANCES IN WATER RESOURCES*
  Libero, G., Ciriello, V., Tartakovsky, D. M.
  2024; 193
- **High-order Lagrangian algorithms for Liouville models of particle-laden flows** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Dominguez-Vazquez, D., Castiblanco-Ballesteros, S. A., Jacobs, G. B., Tartakovsky, D. M.
  2024; 515
- **Design of Stable Hollow Particles for Silicon Anodes** *ACS ENERGY LETTERS*
  Joshi, S. A., Tchelepi, H. A., Tartakovsky, D. M.
  2024
- **A meshless stochastic method for Poisson-Nernst-Planck equations.** *The Journal of chemical physics*
  Monteiro, H. B., Tartakovsky, D. M.
  2024; 161 (5)
- **Data-driven models of nonautonomous systems** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Lu, H., Tartakovsky, D. M.
  2024; 507
- **Efficient quadratures for high-dimensional Bayesian data assimilation** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Cheng, M., Wang, P., Tartakovsky, D. M.
  2024; 506

- **Liouville models of particle-laden flow** *PHYSICS OF FLUIDS*
  Dominguez-Vazquez, D., Jacobs, G. B., Tartakovsky, D. M.
  2024; 36 (6)
- **Extended dynamic mode decomposition for model reduction in fluid dynamics simulations** *PHYSICS OF FLUIDS*
  Libero, G., Chiofalo, A., Ciriello, V., Tartakovsky, D. M.
  2024; 36 (6)
- **Polynomial chaos enhanced by dynamic mode decomposition for order-reduction of dynamic models** *ADVANCES IN WATER RESOURCES*
  Libero, G., Tartakovsky, D. M., Ciriello, V.
  2024; 186
- **Neural Oscillators for Generalization of Physics-Informed Machine Learning**
  Kapoor, T., Chandra, A., Tartakovsky, D. M., Wang, H., Nunez, A., Dollevoet, R.
  edited by Wooldridge, M., Dy, J., Natarajan, S.
  ASSOC ADVANCEMENT ARTIFICIAL INTELLIGENCE.2024: 13059-13067
- **ROLE OF PHYSICS IN PHYSICS-INFORMED MACHINE LEARNING** *JOURNAL OF MACHINE LEARNING FOR MODELING AND COMPUTING*
  Chandra, A., Bakarji, J., Tartakovsky, D. M.
  2024; 5 (1): 85-97
- **MACHINE-LEARNED INFERENCE OF FRACTURE FLOWRATE FROM TEMPERATURE LOGS** *JOURNAL OF MACHINE LEARNING FOR MODELING AND COMPUTING*
  Yang, X., Horne, R. N., Tartakovsky, D. M.
  2024; 5 (3): 31-45
- **Surrogate models of heat transfer in fractured rock and their use in parameter estimation** *COMPUTERS & GEOSCIENCES*
  Song, G., Roubinet, D., Wang, X., Li, G., Song, X., Tartakovsky, D. M.
  2024; 183
- **Feature-informed data assimilation** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Srivastava, A., Kang, W., Tartakovsky, D. M.
  2023; 494
- **DRIPS: A framework for dimension reduction and interpolation in parameter space** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Lu, H., Tartakovsky, D. M.
  2023; 493
- **Parsimonious models of in-host viral dynamics and immune response** *APPLIED MATHEMATICS LETTERS*
  Lu, H., Giannino, F., Tartakovsky, D. M.
  2023; 145
- **Hypertonic treatment of acute respiratory distress syndrome.** *Frontiers in bioengineering and biotechnology*
  Li, W., Martini, J., Intaglietta, M., Tartakovsky, D. M.
  2023; 11: 1250312
- **Effective Models of Heat Conduction in Composite Electrodes** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
  Li, W., Tartakovsky, D. M.
  2023; 170 (10)
- **Uncertain characterization of reservoir fluids due to brittleness of equation of state regression** *GEOENERGY SCIENCE AND ENGINEERING*
  Fulchignoni, L., Tartakovsky, D. M.
  2023; 228
- **Probabilistic forecasting of cumulative production of reservoir fluid with uncertain properties** *GEOENERGY SCIENCE AND ENGINEERING*
  Fulchignoni, L., Santim, C., Tartakovsky, D. M.
  2023; 227
- **Discovery of sparse hysteresis models for piezoelectric materials** *APPLIED PHYSICS LETTERS*

Chandra, A., Daniels, B., Curti, M., Tiels, K., Lomonova, E. A., Tartakovsky, D. M.
2023; 122 (21)

- **Screening of Electrolyte-Anode Buffers to Suppress Lithium Dendrite Growth in All-Solid-State Batteries** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
  Li, W., Tchelepi, H. A., Tartakovsky, D. M.
  2023; 170 (5)
- **Fast and Accurate Estimation of Evapotranspiration for Smart Agriculture** *WATER RESOURCES RESEARCH*
  Li, W., Tartakovsky, D. M.
  2023; 59 (4)
- **Method of Distributions for Two-Phase Flow in Heterogeneous Porous Media** *WATER RESOURCES RESEARCH*
  Yang, H., Tchelepi, H. A. A., Tartakovsky, D. M. M.
  2022; 58 (12)
- **Information geometry of physics-informed statistical manifolds and its use in data assimilation** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Boso, F., Tartakovsky, D. M.
  2022; 467
- **Deep Learning for Simultaneous Inference of Hydraulic and Transport Properties** *WATER RESOURCES RESEARCH*
  Zhou, Z., Zabaras, N., Tartakovsky, D. M.
  2022; 58 (10)
- **Impact of Carbon Binder Domain on the Performance of Lithium-metal Batteries** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
  Boso, F., Li, W., Um, K., Tartakovsky, D. M.
  2022; 169 (10)
- **Autonomous learning of nonlocal stochastic neuron dynamics.** *Cognitive neurodynamics*
  Maltba, T. E., Zhao, H., Tartakovsky, D. M.
  2022; 16 (3): 683-705
- **Stability-Guided Strategies to Mitigate Dendritic Growth in Lithium-Metal Batteries** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
  Li, W., Tchelepi, H. A., Ju, Y., Tartakovsky, D. M.
  2022; 169 (6)
- **Effective Representation of Active Material and Carbon Binder in Porous Electrodes** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
  Li, W., Tartakovsky, D. M.
  2022; 169 (4)
- **From Fluid Flow to Coupled Processes in Fractured Rock: Recent Advances and New Frontiers** *REVIEWS OF GEOPHYSICS*
  Viswanathan, H. S., Ajo-Franklin, J., Birkholzer, J. T., Carey, J. W., Guglielmi, Y., Hyman, J. D., Karra, S., Pyrak-Nolte, L. J., Rajaram, H., Srinivasan, G., Tartakovsky, D. M.
  2022; 60 (1)
- **POLYNOMIAL CHAOS EXPANSIONS FOR STIFF RANDOM ODEs** *SIAM JOURNAL ON SCIENTIFIC COMPUTING*
  Shi, W., Tartakovsky, D. M.
  2022; 44 (3): A1021-A1046
- **Physics-informed neural networks for modelling anisotropic and bi-anisotropic electromagnetic constitutive laws through indirect data**
  Chandra, A., Curti, M., Tiels, K., Lomonova, E. A., Tartakovsky, D. M.
  edited by Ishibuchi, H., Kwoh, C. K., Tan, A. H., Srinivasan, D., Miao, C., Trivedi, A., Crockett, K.
  IEEE.2022: 1451-1459
- **Data-driven sparse discovery of hysteresis models for piezoelectric actuators**
  Chandra, A., Curti, M., Tiels, K., Lomonova, E. A., Tartakovsky, D. M., IEEE
  IEEE.2022
- **Thermal Experiments for Fractured Rock Characterization: Theoretical Analysis and Inverse Modeling** *WATER RESOURCES RESEARCH*
  Zhou, Z., Roubinet, D., Tartakovsky, D. M.

2021; 57 (12)

- **Autonomous learning of nonlocal stochastic neuron dynamics** *COGNITIVE NEURODYNAMICS*
  Maltba, T. E., Zhao, H., Tartakovsky, D. M.
  2021
- **Mutual information for explainable deep learning of multiscale systems** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Taverniers, S., Hall, E. J., Katsoulakis, M. A., Tartakovsky, D. M.
  2021; 444
- **Estimation of Evapotranspiration Rates and Root Water Uptake Profiles From Soil Moisture Sensor Array Data** *WATER RESOURCES RESEARCH*
  Li, W., Wainwright, H. M., Yan, Q., Zhou, H., Dafflon, B., Wu, Y., Versteeg, R., Tartakovsky, D. M.
  2021; 57 (11)
- **Extended dynamic mode decomposition for inhomogeneous problems** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Lu, H., Tartakovsky, D. M.
  2021; 444
- **A model of anemic tissue perfusion after blood transfusion shows critical role of endothelial response to shear stress stimuli.** *Journal of applied physiology (Bethesda, Md. : 1985)*
  Li, W., Tsai, A. G., Intaglietta, M., Tartakovsky, D. M.
  2021
- **Consensus Equilibrium for Subsurface Delineation** *WATER RESOURCES RESEARCH*
  Yang, H., Lin, Y., Wohlberg, B., Tartakovsky, D. M.
  2021; 57 (10)
- **Exponential time differencing for problems without natural stiffness separation** *COMPUTATIONAL GEOSCIENCES*
  Dendumrongsup, N., Tartakovsky, D. M.
  2021
- **Data-driven discovery of coarse-grained equations** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Bakarji, J., Tartakovsky, D. M.
  2021; 434
- **GINNs: Graph-Informed Neural Networks for multiscale physics** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Hall, E. J., Taverniers, S., Katsoulakis, M. A., Tartakovsky, D. M.
  2021; 433
- **Probabilistic Reconstruction of Hydrofacies With Support Vector Machines** *WATER RESOURCES RESEARCH*
  Dendumrongsup, N., Tartakovsky, D. M.
  2021; 57 (5)
- **Hybrid models of chemotaxis with application to leukocyte migration.** *Journal of mathematical biology*
  Lu, H., Um, K., Tartakovsky, D. M.
  2021; 82 (4): 23
- **Lagrangian models of particle-laden flows with stochastic forcing: Monte Carlo, moment equations, and method of distributions analyses** *PHYSICS OF FLUIDS*
  Dominguez-Vazquez, D., Jacobs, G. B., Tartakovsky, D. M.
  2021; 33 (3)
- **Temperature estimation from current and voltage measurements in lithium-ion battery systems** *JOURNAL OF ENERGY STORAGE*
  Wang, P., Yang, L., Wang, H., Tartakovsky, D. M., Onori, S.
  2021; 34
- **METHOD OF DISTRIBUTIONS FOR SYSTEMS WITH STOCHASTIC FORCING** *INTERNATIONAL JOURNAL FOR UNCERTAINTY QUANTIFICATION*
  Rutjens, R. J. L., Jacobs, G. B., Tartakovsky, D. M.
  2021; 11 (2): 83–104

- **DYNAMICS OF DATA-DRIVEN AMBIGUITY SETS FOR HYPERBOLIC CONSERVATION LAWS WITH UNCERTAIN INPUTS** *SIAM JOURNAL ON SCIENTIFIC COMPUTING*
  Boso, F., Boskos, D., Cortes, J., Martinez, S., Tartakovsky, D. M.
  2021; 43 (3): A2102-A2129
- **Tensor methods for the Boltzmann-BGK equation** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Boelens, A. M. P., Venturi, D., Tartakovsky, D. M.
  2020; 421
- **Solute dispersion in bifurcating networks** *JOURNAL OF FLUID MECHANICS*
  Zimmerman, R. A., Tartakovsky, D. M.
  2020; 901
- **Markov chain Monte Carlo with neural network surrogates: application to contaminant source identification** *STOCHASTIC ENVIRONMENTAL RESEARCH AND RISK ASSESSMENT*
  Zhou, Z., Tartakovsky, D. M.
  2020
- **Estimation of distributions via multilevel Monte Carlo with stratified sampling** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Taverniers, S., Tartakovsky, D. M.
  2020; 419
- **Accelerated Multilevel Monte Carlo With Kernel-Based Smoothing and Latinized Stratification** *WATER RESOURCES RESEARCH*
  Taverniers, S., Bosma, S. B. M., Tartakovsky, D. M.
  2020; 56 (9)
- **Learning on dynamic statistical manifolds** *PROCEEDINGS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES*
  Boso, F., Tartakovsky, D. M.
  2020; 476 (2239): 20200213
- **Lagrangian dynamic mode decomposition for construction of reduced-order models of advection-dominated phenomena** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Lu, H., Tartakovsky, D. M.
  2020; 407
- **Analytical model for gravity segregation of horizontal multiphase flow in porous media** *PHYSICS OF FLUIDS*
  Rabinovich, A., Bedrikovetsky, P., Tartakovsky, D. M.
  2020; 32 (4)
- **Modified immersed boundary method for flows over randomly rough surfaces** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Kwon, C., Tartakovsky, D. M.
  2020; 406
- **Bayesian Update and Method of Distributions: Application to Leak Detection in Transmission Mains** *WATER RESOURCES RESEARCH*
  Alawadhi, A., Tartakovsky, D. M.
  2020; 56 (2)
- **Method of distributions for quantification of geologic uncertainty in flow simulations** *Method of distributions for quantification of geologic uncertainty in flow simulations*
  Yang, H. J., Boso, F., Tchelepi, H. A., Tartakovsky, D. M.
  2020
- **PREDICTION ACCURACY OF DYNAMIC MODE DECOMPOSITION** *SIAM JOURNAL ON SCIENTIFIC COMPUTING*
  Lu, H., Tartakovsky, D. M.
  2020; 42 (3): A1639–A1662
- **Data-Informed Method of Distributions for Hyperbolic Conservation Laws** *SIAM Journal on Scientific Computing*
  Boso, F., Tartakovsky, D. M.
  2020; 42 (1): 25

- **Resource-Constrained Model Selection for Uncertainty Propagation and Data Assimilation** *SIAM-ASA JOURNAL ON UNCERTAINTY QUANTIFICATION*
  Yang, L., Wang, P., Tartakovsky, D. M.
  2020; 8 (3): 1118–38
- **Stochastic self-tuning hybrid algorithm for reaction-diffusion systems** *JOURNAL OF CHEMICAL PHYSICS*
  Ruiz-Martinez, A., Bartol, T. M., Sejnowski, T. J., Tartakovsky, D. M.
  2019; 151 (24): 244117
- **Distribution-Based Global Sensitivity Analysis in Hydrology** *WATER RESOURCES RESEARCH*
  Ciriello, V., Lauriola, I., Tartakovsky, D. M.
  2019
- **Probabilistic Forecast of Single-Phase Flow in Porous Media With Uncertain Properties** *WATER RESOURCES RESEARCH*
  Yang, H., Boso, F., Tchelepi, H. A., Tartakovsky, D. M.
  2019
- **Efficient gHMC Reconstruction of Contaminant Release History** *FRONTIERS IN ENVIRONMENTAL SCIENCE*
  Barajas-Solano, D. A., Alexander, F. J., Anghel, M., Tartakovsky, D. M.
  2019; 7
- **Diffusion in Porous Media: Phenomena and Mechanisms** *TRANSPORT IN POROUS MEDIA*
  Tartakovsky, D. M., Dentz, M.
  2019; 130 (1): 105–27
- **Causality and Bayesian Network PDEs for multiscale representations of porous media** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Um, K., Hall, E. J., Katsoulakis, M. A., Tartakovsky, D. M.
  2019; 394: 658–78
- **Microstructural heterogeneity drives reaction initiation in granular materials** *APPLIED PHYSICS LETTERS*
  Bakarji, J., Tartakovsky, D. M.
  2019; 114 (25)
- **A Mechanistic Analysis of Possible Blood Transfusion Failure to Increase Circulatory Oxygen Delivery in Anemic Patients** *ANNALS OF BIOMEDICAL ENGINEERING*
  Zimmerman, R. A., Tsai, A. G., Intaglietta, M., Tartakovsky, D. M.
  2019; 47 (4): 1094–1105
- **A Mechanistic Analysis of Possible Blood Transfusion Failure to Increase Circulatory Oxygen Delivery in Anemic Patients.** *Annals of biomedical engineering*
  Zimmerman, R. A., Tsai, A. G., Intaglietta, M., Tartakovsky, D. M.
  2019
- **Quantification of Predictive Uncertainty in Models of FtsZ ring assembly in Escherichia coli.** *Journal of theoretical biology*
  Ye, Y. n., Ruiz-Martinez, A. n., Wang, P. n., Tartakovsky, D. M.
  2019: 110006
- **Method of Distributions for Water Hammer Equations With Uncertain Parameters** *WATER RESOURCES RESEARCH*
  Alawadhi, A., Boso, F., Tartakovsky, D. M.
  2018; 54 (11): 9398–9411
- **Nonlocal PDF methods for Langevin equations with colored noise** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Maltba, T., Gremaud, P. A., Tartakoysky, D. M.
  2018; 367: 87–101
- **Information-Theoretic Approach to Bidirectional Scaling** *WATER RESOURCES RESEARCH*
  Boso, F., Tartakovsky, D. M.
  2018; 54 (7): 4916–28
- **Probabilistic Forecasting of Nitrogen Dynamics in Hyporheic Zone** *WATER RESOURCES RESEARCH*

Boso, F., Marzadri, A., Tartakovsky, D. M.
2018; 54 (7): 4417–31

- **Interpretation of Heat-Pulse Tracer Tests for Characterization of Three-Dimensional Velocity Fields in Hyporheic Zone** *WATER RESOURCES RESEARCH*
  Zlotnik, V., Tartakovsky, D. M.
  2018; 54 (6): 4028–39
- **Efficient models of polymerization applied to FtsZ ring assembly in Escherichia coli** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Ruiz-Martinez, A., Bartol, T. M., Sejnowski, T. J., Tartakovsky, D. M.
  2018; 115 (19): 4933–38
- **The frequency domain approach to analyse field-scale miscible flow transport experiments in the soils** *BIOSYSTEMS ENGINEERING*
  Severino, G., Toraldo, G., Tartakovsky, D. M.
  2018; 168: 96–104
- **Hydrodynamic dispersion in a tube with diffusive losses through its walls** *JOURNAL OF FLUID MECHANICS*
  Zimmerman, R. A., Severino, G., Tartakovsky, D. M.
  2018; 837: 546-561
- **Global sensitivity analysis of multiscale properties of porous materials** *JOURNAL OF APPLIED PHYSICS*
  Um, K., Zhang, X., Katsoulakis, M., Plechac, P., Tartakovsky, D. M.
  2018; 123 (7)
- **A Hybrid Multiscale Model of Miscible Reactive Fronts** *WATER RESOURCES RESEARCH*
  Siuliukina, N., Tartakovsky, D. M.
  2018; 54 (1): 61–71
- **Parallel tensor methods for high-dimensional linear PDEs** *Journal of Computational Physics*
  Boelens, A. M., Venturi, D., Tartakovsky, D. M.
  2018; 375: 519 - 539
- **Effects of Hydraulic Soil Properties on Vegetation Pattern Formation in Sloping Landscapes** *BULLETIN OF MATHEMATICAL BIOLOGY*
  Severino, G., Giannino, F., Carteni, F., Mazzoleni, S., Tartakovsky, D. M.
  2017; 79 (12): 2773–84
- **Effects of Hydraulic Soil Properties on Vegetation Pattern Formation in Sloping Landscapes.** *Bulletin of mathematical biology*
  Severino, G., Giannino, F., Cartení, F., Mazzoleni, S., Tartakovsky, D. M.
  2017; 79 (12): 2773-2784
- **Impact of Hydrogeological Uncertainty on Estimation of Environmental Risks Posed by Hydrocarbon Transportation Networks** *WATER RESOURCES RESEARCH*
  Ciriello, V., Lauriola, I., Bonvicini, S., Cozzani, V., Di Federico, V., Tartakovsky, D. M.
  2017; 53 (11): 8686–97
- **Estimation of Intrinsic Length Scales of Flow in Unsaturated Porous Media** *WATER RESOURCES RESEARCH*
  Assouline, S., Ciriello, V., Tartakovsky, D. M.
  2017; 53 (11): 9980–87
- **Posttransfusion Increase of Hematocrit per se Does Not Improve Circulatory Oxygen Delivery due to Increased Blood Viscosity** *ANESTHESIA AND ANALGESIA*
  Zimmerman, R., Tsai, A. G., Vazquez, B. Y., Cabrales, P., Hofmann, A., Meier, J., Shander, A., Spahn, D. R., Friedman, J. M., Tartakovsky, D. M., Intaglietta, M.
  2017; 124 (5): 1547-1554
- **Optimal design of nanoporous materials for electrochemical devices** *APPLIED PHYSICS LETTERS*
  Zhang, X., Tartakovsky, D. M.
  2017; 110 (14)
- **An analytical model for carrier-facilitated solute transport in weakly heterogeneous porous media** *APPLIED MATHEMATICAL MODELLING*

Severino, G., Campagna, R., Tartakovsky, D. M.
2017; 44: 261-273

- **On the use of reverse Brownian motion to accelerate hybrid simulations** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Bakarji, J., Tartakovsky, D. M.
  2017; 334: 68-80
- **A tightly-coupled domain-decomposition approach for highly nonlinear stochastic multiphysics systems** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Taverniers, S., Tartakovsky, D. M.
  2017; 330: 884-901
- **Doubly Penalized LASSO for Reconstruction of Biological Networks** *PROCEEDINGS OF THE IEEE*
  Asadi, B., Maurya, M. R., Tartakovsky, D. M., Subramaniam, S.
  2017; 105 (2): 319-329
- **Effective Ion Diffusion in Charged Nanoporous Materials** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
  Zhang, X., Tartakovsky, D. M.
  2017; 164 (4): E53-E61
- **Role of glycocalyx in attenuation of shear stress on endothelial cells: from in vivo experiments to microfluidic circuits**
  Battiato, I., Tartakovsky, D., Cabrales, P., Intaglietta, M., IEEE
  IEEE.2017
- **Noise-driven interfaces and their macroscopic representation** *PHYSICAL REVIEW E*
  Dentz, M., Neuweiler, I., Meheust, Y., Tartakovsky, D. M.
  2016; 94 (5)
- **Particle Methods for Heat Transfer in Fractured Media** *TRANSPORT IN POROUS MEDIA*
  Gisladottir, V. R., Roubinet, D., Tartakovsky, D. M.
  2016; 115 (2): 311-326
- **Noise-driven interfaces and their macroscopic representation.** *Physical review. E*
  Dentz, M., Neuweiler, I., Méheust, Y., Tartakovsky, D. M.
  2016; 94 (5-1): 052802-?
- **Analytical models of axisymmetric reaction-diffusion phenomena in composite media** *INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER*
  Zimmerman, R. A., Jankowski, T. A., Tartakovsky, D. M.
  2016; 99: 425-431
- **Efficient Multiscale Models of Polymer Assembly** *BIOPHYSICAL JOURNAL*
  Ruiz-Martinez, A., Bartol, T. M., Sejnowski, T. J., Tartakovsky, D. M.
  2016; 111 (1): 185-196
- **Shear-Induced Nitric Oxide Production by Endothelial Cells** *BIOPHYSICAL JOURNAL*
  Sriram, K., Laughlin, J. G., Rangamani, P., Tartakovsky, D. M.
  2016; 111 (1): 208-221
- **The method of distributions for dispersive transport in porous media with uncertain hydraulic properties** *WATER RESOURCES RESEARCH*
  Boso, F., Tartakovsky, D. M.
  2016; 52 (6): 4700-4712
- **Conservative tightly-coupled simulations of stochastic multiscale systems** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Taverniers, S., Pigarov, A. Y., Tartakovsky, D. M.
  2016; 313: 400-414
- **Simulating social-ecological systems: the Island Digital Ecosystem Avatars (IDEA) consortium** *GIGASCIENCE*
  Davies, N., Field, D., Gavaghan, D., Holbrook, S. J., Planes, S., Troyer, M., Bonsall, M., Claudet, J., Roderick, G., Schmitt, R. J., Zettler, L. A., Berteaux, V., Bossin, et al

2016; 5

- **Stochastic Collocation Methods for Nonlinear Parabolic Equations with Random Coefficients** *SIAM-ASA JOURNAL ON UNCERTAINTY QUANTIFICATION*
  Barajas-Solano, D. A., Tartakovsky, D. M.
  2016; 4 (1): 475–94
- **Temperature fields induced by geothermal devices** *ENERGY*
  Ciriello, V., Bottarelli, M., Di Federico, V., Tartakovsky, D. M.
  2015; 93: 1896-1903
- **Data-driven models of groundwater salinization in coastal plains** *JOURNAL OF HYDROLOGY*
  Felisa, G., Ciriello, V., Antonellini, M., Di Federico, V., Tartakovsky, D. M.
  2015; 531: 187-197
- **Coexistence of short- and long-range ferromagnetic order in nanocrystalline Fe2Mn1-xCuxAl (x=0.0, 0.1 and 0.3) synthesized by high-energy ball milling** *JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS*
  Tran Dang Thanh, T. D., Nanto, D., Ngo Thi Uyen Tuyen, N. T., Nan, W., Yu, Y., Tartakovsky, D. M., Yu, S. C.
  2015; 394: 37-43
- **Critical Behavior in Double-Exchange Ferromagnets of Pr0.6Sr0.4MnO3 Nanoparticles** *IEEE TRANSACTIONS ON MAGNETICS*
  Tran Dang Thanh, T. D., YiKyung, Y., Ho, T. A., Manh, T. V., The Long Phan, T. L., Tartakovsky, D. M., Yu, S. C.
  2015; 51 (11)
- **Impact of stochastic fluctuations in the cell free layer on nitric oxide bioavailability** *FRONTIERS IN COMPUTATIONAL NEUROSCIENCE*
  Park, S., Intaglietta, M., Tartakovsky, D. M.
  2015; 9
- **Design of nanoporous materials with optimal sorption capacity** *JOURNAL OF APPLIED PHYSICS*
  Zhang, X., Urita, K., Moriguchi, I., Tartakovsky, D. M.
  2015; 117 (24)
- **A boundary-layer solution for flow at the soil-root interface** *JOURNAL OF MATHEMATICAL BIOLOGY*
  Severino, G., Tartakovsky, D. M.
  2015; 70 (7): 1645-1668
- **Linear functional minimization for inverse modeling** *WATER RESOURCES RESEARCH*
  Barajas-Solano, D. A., WOHLBERG, B. E., Vesselinov, V. V., Tartakovsky, D. M.
  2015; 51 (6): 4516-4531
- **Critical behavior and magnetocaloric effect of Pr1-xCaxMnO3** *JOURNAL OF APPLIED PHYSICS*
  Ho, T. A., Thanh, T. D., Yu, Y., Tartakovsky, D. M., Ho, T. O., Thang, P. D., Anh-Tuan Le, A. T., The-Long Phan, T. L., Yu, S. C.
  2015; 117 (17)
- **Impact of Data Assimilation on Cost-Accuracy Tradeoff in Multifidelity Models** *SIAM-ASA JOURNAL ON UNCERTAINTY QUANTIFICATION*
  Sinsbeck, M., Tartakovsky, D. M.
  2015; 3 (1): 954–68
- **Hematocrit dispersion in asymmetrically bifurcating vascular networks** *AMERICAN JOURNAL OF PHYSIOLOGY-HEART AND CIRCULATORY PHYSIOLOGY*
  Sriram, K., Intaglietta, M., Tartakovsky, D. M.
  2014; 307 (11): H1576-H1586
- **Identifying Transport Behavior of Single-Molecule Trajectories** *BIOPHYSICAL JOURNAL*
  Regner, B. M., Tartakovsky, D. M., Sejnowski, T. J.
  2014; 107 (10): 2345-2351
- **Vegetation Pattern Formation Due to Interactions Between Water Availability and Toxicity in Plant-Soil Feedback** *BULLETIN OF MATHEMATICAL BIOLOGY*
  Marasco, A., Iuorio, A., Carteni, F., Bonanomi, G., Tartakovsky, D. M., Mazzoleni, S., Giannino, F.
  2014; 76 (11): 2866-2883

- **Replacing the Transfusion of 1-2 Units of Blood with Plasma Expanders that Increase Oxygen Delivery Capacity: Evidence from Experimental Studies.** *Journal of functional biomaterials*
  Tsai, A. G., Salazar Vázquez, B. Y., Cabrales, P., Kistler, E. B., Tartakovsky, D. M., Subramaniam, S., Acharya, S. A., Intaglietta, M.
  2014; 5 (4): 232-245
- **Non-Newtonian Flow of Blood in Arterioles: Consequences for Wall Shear Stress Measurements** *MICROCIRCULATION*
  Sriram, K., Intaglietta, M., Tartakovsky, D. M.
  2014; 21 (7): 628-639
- **Information theoretic approach to complex biological network reconstruction: application to cytokine release in RAW 264.7 macrophages** *BMC SYSTEMS BIOLOGY*
  Farhangmehr, F., Maurya, M. R., Tartakovsky, D. M., Subramaniam, S.
  2014; 8
- **Cumulative distribution function solutions of advection-reaction equations with uncertain parameters** *PROCEEDINGS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES*
  Boso, F., Broyda, S. V., Tartakovsky, D. M.
  2014; 470 (2166)
- **Noise propagation in hybrid models of nonlinear systems: The Ginzburg-Landau equation** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Taverniers, S., Alexander, F. J., Tartakovsky, D. M.
  2014; 262: 313-324
- **Analytical models of heat conduction in fractured rocks** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*
  Martinez, A. R., Roubinet, D., Tartakovsky, D. M.
  2014; 119 (1): 83-98
- **Hybrid modeling of heterogeneous geochemical reactions in fractured porous media** *WATER RESOURCES RESEARCH*
  Roubinet, D., Tartakovsky, D. M.
  2013; 49 (12): 7945-7956
- **Stochastic smoothed profile method for modeling random roughness in flow problems** *COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING*
  Zayernouri, M., Park, S., Tartakovsky, D. M., Karniadakis, G. E.
  2013; 263: 99-112
- **Exact PDF equations and closure approximations for advective-reactive transport** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Venturi, D., Tartakovsky, D. M., Tartakovsky, A. M., Karniadakis, G. E.
  2013; 243: 323-343
- **Anomalous Diffusion of Single Particles in Cytoplasm** *BIOPHYSICAL JOURNAL*
  Regner, B. M., Vucinic, D., Domnisoru, C., Bartol, T. M., Hetzer, M. W., Tartakovsky, D. M., Sejnowski, T. J.
  2013; 104 (8): 1652-1660
- **Probability Density Function Method for Langevin Equations with Colored Noise** *PHYSICAL REVIEW LETTERS*
  Wang, P., Tartakovsky, A. M., Tartakovsky, D. M.
  2013; 110 (14)
- **Assessment and management of risk in subsurface hydrology: A review and perspective** *ADVANCES IN WATER RESOURCES*
  Tartakovsky, D. M.
  2013; 51: 247-260
- **CDF SOLUTIONS OF BUCKLEY-LEVERETT EQUATION WITH UNCERTAIN PARAMETERS** *MULTISCALE MODELING & SIMULATION*
  Wang, P., Tartakovsky, D. M., Jarman, K. D., Tartakovsky, A. M.
  2013; 11 (1): 118-133
- **COMPUTING GREEN'S FUNCTIONS FOR FLOW IN HETEROGENEOUS COMPOSITE MEDIA** *INTERNATIONAL JOURNAL FOR UNCERTAINTY QUANTIFICATION*
  Barajas-Solano, D. A., Tartakovsky, D. M.
  2013; 3 (1): 39-46

- **Particle-tracking simulations of anomalous transport in hierarchically fractured rocks** *COMPUTERS & GEOSCIENCES*
  Roubinet, D., de Dreuzy, J., Tartakovsky, D. M.
  2013; 50: 52-58
- **An Information-theoretic Algorithm to Data-driven Genetic Pathway Interaction Network Reconstruction of Dynamic Systems** *2013 IEEE INTERNATIONAL CONFERENCE ON BIOINFORMATICS AND BIOMEDICINE (BIBM)*
  Farhangmehr, F., Tartakovsky, D. M., Sadatmousavi, P., Maurya, M. R., Subramaniam, S.
  2013
- **A NEW PHYSIOLOGICAL BOUNDARY CONDITION FOR HEMODYNAMICS** *SIAM JOURNAL ON APPLIED MATHEMATICS*
  Cousins, W., Gremaud, P. A., Tartakovsky, D. M.
  2013; 73 (3): 1203-1223
- **Stochastic operator-splitting method for reaction-diffusion systems** *JOURNAL OF CHEMICAL PHYSICS*
  Choi, T., Maurya, M. R., Tartakovsky, D. M., Subramaniam, S.
  2012; 137 (18)
- **Autoregulation and mechanotransduction control the arteriolar response to small changes in hematocrit** *AMERICAN JOURNAL OF PHYSIOLOGY-HEART AND CIRCULATORY PHYSIOLOGY*
  Sriram, K., Vazquez, B. Y., Tsai, A. G., Cabrales, P., Intaglietta, M., Tartakovsky, D. M.
  2012; 303 (9): H1096-H1106
- **Uncertainty quantification in kinematic-wave models** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Wang, P., Tartakovsky, D. M.
  2012; 231 (23): 7868-7880
- **Comparison of statistical and optimisation-based methods for data-driven network reconstruction of biochemical systems** *IET SYSTEMS BIOLOGY*
  Asadi, B., Maurya, M. R., Tartakovsky, D. M., Subramaniam, S.
  2012; 6 (5): 155-U53
- **PEG-albumin supraplasma expansion is due to increased vessel wall shear stress induced by blood viscosity shear thinning** *AMERICAN JOURNAL OF PHYSIOLOGY-HEART AND CIRCULATORY PHYSIOLOGY*
  Sriram, K., Tsai, A. G., Cabrales, P., Meng, F., Acharya, S. A., Tartakovsky, D. M., Intaglietta, M.
  2012; 302 (12): H2489-H2497
- **Impact of endothelium roughness on blood flow** *JOURNAL OF THEORETICAL BIOLOGY*
  Park, S. W., Intaglietta, M., Tartakovsky, D. M.
  2012; 300: 152-160
- **Lagrangian models of reactive transport in heterogeneous porous media with uncertain properties** *PROCEEDINGS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES*
  Severino, G., Tartakovsky, D. M., Srinivasan, G., Viswanathan, H.
  2012; 468 (2140): 1154-1174
- **A Bayesian approach to integrate temporal data into probabilistic risk analysis of monitored NAPL remediation** *ADVANCES IN WATER RESOURCES*
  Fernandez-Garcia, D., Bolster, D., Sanchez-Vila, X., Tartakovsky, D. M.
  2012; 36: 108-120
- **Introduction to the special issue on uncertainty quantification and risk assessment** *ADVANCES IN WATER RESOURCES*
  Tartakovsky, D. M., Nowak, W., Bolster, D.
  2012; 36: 1-2
- **Probabilistic analysis of maintenance and operation of artificial recharge ponds** *ADVANCES IN WATER RESOURCES*
  Pedretti, D., Barahona-Palomo, M., Bolster, D., Fernandez-Garcia, D., Sanchez-Vila, X., Tartakovsky, D. M.
  2012; 36: 23-35
- **Semi-analytical solutions for solute transport and exchange in fractured porous media** *WATER RESOURCES RESEARCH*
  Roubinet, D., de Dreuzy, J., Tartakovsky, D. M.

2012; 48

- **Probabilistic analysis of groundwater-related risks at subsurface excavation sites** *ENGINEERING GEOLOGY*
  Jurado, A., De Gaspari, F., Vilarrasa, V., Bolster, D., Sanchez-Vila, X., Fernandez-Garcia, D., Tartakovsky, D. M.
  2012; 125: 35-44

- **Hybrid models of reactive transport in porous and fractured media** *ADVANCES IN WATER RESOURCES*
  Battiato, I., Tartakovsky, D. M., Tartakovsky, A. M., Scheibe, T. D.
  2011; 34 (9): 1140-1150

- **Mean arterial pressure nonlinearity in an elastic circulatory system subjected to different hematocrits** *BIOMECHANICS AND MODELING IN MECHANOBIOLOGY*
  Branigan, T., Bolster, D., Salazar Vazquez, B. Y., Intaglietta, M., Tartakovsky, D. M.
  2011; 10 (4): 591-598

- **Integration of cardiovascular regulation by the blood/endothelium cell-free layer** *WILEY INTERDISCIPLINARY REVIEWS-SYSTEMS BIOLOGY AND MEDICINE*
  Hightower, C. M., Vazquez, B. Y., Park, S. W., Sriram, K., Martini, J., Yalcin, O., Tsai, A. G., Cabrales, P., Tartakovsky, D. M., Johnson, P. C., Intaglietta, M.
  2011; 3 (4): 458-470

- **PDF equations for advective-reactive transport in heterogeneous porous media with uncertain properties** *JOURNAL OF CONTAMINANT HYDROLOGY*
  Tartakovsky, D. M., Broyda, S.
  2011; 120-21: 129-140

- **Applicability regimes for macroscopic models of reactive transport in porous media** *JOURNAL OF CONTAMINANT HYDROLOGY*
  BATTIATO, I., Tartakovsky, D. M.
  2011; 120-21: 18-26

- **PDF equations for advective-reactive transport in heterogeneous porous media with uncertain properties.** *Journal of contaminant hydrology*
  Tartakovsky, D. M., Broyda, S.
  2011; 120-121: 129-140

- **Applicability regimes for macroscopic models of reactive transport in porous media.** *Journal of contaminant hydrology*
  BATTIATO, I., Tartakovsky, D. M.
  2011; 120-121: 18-26

- **Reduced complexity models for probabilistic forecasting of infiltration rates** *ADVANCES IN WATER RESOURCES*
  Wang, P., Tartakovsky, D. M.
  2011; 34 (3): 375-382

- **The Effect of Small Changes in Hematocrit on Nitric Oxide Transport in Arterioles** *ANTIOXIDANTS & REDOX SIGNALING*
  Sriram, K., Vazquez, B. Y., Yalcin, O., Johnson, P. C., Intaglietta, M., Tartakovsky, D. M.
  2011; 14 (2): 175-185

- **PROBABILISTIC PREDICTIONS OF INFILTRATION INTO HETEROGENEOUS MEDIA WITH UNCERTAIN HYDRAULIC PARAMETERS** *INTERNATIONAL JOURNAL FOR UNCERTAINTY QUANTIFICATION*
  Wang, P., Tartakovsky, D. M.
  2011; 1 (1): 35-47

- **Probability density functions for passive scalars dispersed in random velocity fields** *GEOPHYSICAL RESEARCH LETTERS*
  Dentz, M., Tartakovsky, D. M.
  2010; 37

- **Stochastic hybrid modeling of intracellular calcium dynamics** *JOURNAL OF CHEMICAL PHYSICS*
  Choi, T., Maurya, M. R., Tartakovsky, D. M., Subramaniam, S.
  2010; 133 (16)

- **Uncertainty quantification in modeling flow and transport in porous media** *STOCHASTIC ENVIRONMENTAL RESEARCH AND RISK ASSESSMENT*

Guadagnini, A., Tartakovsky, D. M.
2010; 24 (7): 953-954

- **Probability density functions for advective-reactive transport in radial flow** *STOCHASTIC ENVIRONMENTAL RESEARCH AND RISK ASSESSMENT*
  Broyda, S., Dentz, M., Tartakovsky, D. M.
  2010; 24 (7): 985-992
- **Elastic Response of Carbon Nanotube Forests to Aerodynamic Stresses** *PHYSICAL REVIEW LETTERS*
  Battiato, I., Bandaru, P. R., Tartakovsky, D. M.
  2010; 105 (14)
- **Uncertainty quantification via random domain decomposition and probabilistic collocation on sparse grids** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Lin, G., Tartakovsky, A. M., Tartakovsky, D. M.
  2010; 229 (19): 6995-7012
- **Random walk particle tracking simulations of non-Fickian transport in heterogeneous media** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Srinivasan, G., Tartakovsky, D. M., Dentz, M., Viswanathan, H., Berkowitz, B., Robinson, B. A.
  2010; 229 (11): 4304-4314
- **On the use of analytical solutions to design pumping tests in leaky aquifers connected to a stream** *JOURNAL OF HYDROLOGY*
  Christensen, S., Zlotnik, V. A., Tartakovsky, D. M.
  2010; 381 (3-4): 341-351
- **Predicting Vertical Connectivity Within an Aquifer System** *BAYESIAN ANALYSIS*
  Short, M., Higdon, D., Guadagnini, L., Guadagnini, A., Tartakovsky, D. M.
  2010; 5 (3): 557-581
- **Functional optical imaging at the microscopic level** *JOURNAL OF BIOMEDICAL OPTICS*
  Salazar Vazquez, B. Y., Hightower, C. M., Sapuppo, F., Tartakovsky, D. M., Intaglietta, M.
  2010; 15 (1)
- **On breakdown of macroscopic models of mixing-controlled heterogeneous reactions in porous media** *ADVANCES IN WATER RESOURCES*
  BATTIATO, I., Tartakovsky, D. M., Tartakovsky, A. M., Scheibe, T.
  2009; 32 (11): 1664-1673
- **Optimal design of pumping tests in leaky aquifers for stream depletion analysis** *JOURNAL OF HYDROLOGY*
  Christensen, S., Zlotnik, V. A., Tartakovsky, D. M.
  2009; 375 (3-4): 554-565
- **Abrupt-Interface Solution for Carbon Dioxide Injection into Porous Media** *TRANSPORT IN POROUS MEDIA*
  Dentz, M., Tartakovsky, D. M.
  2009; 79 (1): 15-27
- **Closure to "Stream Depletion by Groundwater Pumping in Leaky Aquifers" by Vitaly A. Zlotnik and Daniel M. Tartakovsky** *JOURNAL OF HYDROLOGIC ENGINEERING*
  Zlotnik, V. A., Tartakovsky, D. M.
  2009; 14 (8): 889-891
- **Response to "Comments on Abrupt-Interface Solution for Carbon Dioxide Injection into Porous Media by Dentz and Tartakovsky (2008)" by Lu et al.** *TRANSPORT IN POROUS MEDIA*
  Dentz, M., Tartakovsky, D. M.
  2009; 79 (1): 39-41
- **Probability density functions for advective-reactive transport with uncertain reaction rates** *WATER RESOURCES RESEARCH*
  Tartakovsky, D. M., Dentz, M., Lichtner, P. C.
  2009; 45
- **Effects of spatio-temporal variability of precipitation on contaminant migration in the vadose zone** *GEOPHYSICAL RESEARCH LETTERS*
  Wang, P., Quinlan, P., Tartakovsky, D. M.

2009; 36

- **Probabilistic risk analysis of groundwater remediation strategies** *WATER RESOURCES RESEARCH*
  Bolster, D., Barahona, M., Dentz, M., Fernandez-Garcia, D., Sanchez-Vila, X., TRINCHERO, P., Valhondo, C., Tartakovsky, D. M.
  2009; 45
- **Perspective on theories of non-Fickian transport in heterogeneous media** *ADVANCES IN WATER RESOURCES*
  Neuman, S. P., Tartakovsky, D. M.
  2009; 32 (5): 670-680
- **Delineation of geological facies from poorly differentiated data** *ADVANCES IN WATER RESOURCES*
  Wohlberg, B., Tartakovsky, D. M.
  2009; 32 (2): 225-230
- **Hydrogeophysical Approach for Identification of Layered Structures of the Vadose Zone from Electrical Resistivity Data** *VADOSE ZONE JOURNAL*
  Tartakovsky, A. M., Bolster, D., Tartakovsky, D. M.
  2008; 7 (4): 1207-1214
- **Probabilistic risk analysis of building contamination** *INDOOR AIR*
  Bolster, D. T., Tartakovsky, D. M.
  2008; 18 (5): 351-364
- **Stochastic Langevin model for flow and transport in porous media** *PHYSICAL REVIEW LETTERS*
  Tartakovsky, A. M., Tartakovsky, D. M., Meakin, P.
  2008; 101 (4)
- **A reduced complexity model for probabilistic risk assessment of groundwater contamination** *WATER RESOURCES RESEARCH*
  Winter, C. L., Tartakovsky, D. M.
  2008; 44 (6)
- **Self-consistent four-point closure for transport in steady random flows** *PHYSICAL REVIEW E*
  Dentz, M., Tartakovsky, D. M.
  2008; 77 (6)
- **Nonlinear localization of light in disordered optical fiber arrays** *PHYSICAL REVIEW A*
  Srinivasan, G., Aceves, A., Tartakovsky, D. M.
  2008; 77 (6)
- **Stream depletion by groundwater pumping in leaky aquifers** *JOURNAL OF HYDROLOGIC ENGINEERING*
  Zlotnik, V. A., Tartakovsky, D. M.
  2008; 13 (2): 43-50
- **Uncertain future of hydrogeology** *Fall Annual Meeting of the American-Geophysical-Union*
  Tartakovsky, D. M., Winter, C. L.
  ASCE-AMER SOC CIVIL ENGINEERS.2008: 37–39
- **Machine learning methods for inverse modeling** *GEOENV VI - GEOSTATISTICS FOR ENVIRONMENTAL APPLICATIONS, PROCEEDINGS*
  Tartakovsky, D. M., Guadagnini, A., Wohlberg, B. E.
  2008; 15: 117-125
- **HYBRID SIMULATIONS OF REACTION-DIFFUSION SYSTEMS IN POROUS MEDIA** *SIAM JOURNAL ON SCIENTIFIC COMPUTING*
  Tartakovsky, A. M., Tartakovsky, D. M., Scheibe, T. D., Meakin, P.
  2008; 30 (6): 2799-2816
- **Hybrid numerical methods for multiscale simulations of subsurface biogeochemical processes** *SCIDAC 2008: SCIENTIFIC DISCOVERY THROUGH ADVANCED COMPUTING*
  Scheibe, T. D., Tartakovsky, A. M., Tartakovsky, D. M., Redden, G. D., Meakin, P., Palmer, B. J., Schuchardt, K. L.
  2008; 125
- **Quantification of uncertainty in geochemical reactions** *WATER RESOURCES RESEARCH*

Srinivasan, G., Tartakovsky, D. M., Robinson, B. A., Aceves, A. B.
2007; 43 (12)

- **Type curve interpretation of late-time pumping test data in randomly heterogeneous aquifers** *WATER RESOURCES RESEARCH*
  Neuman, S. P., Blattstein, A., Riva, M., Tartakovsky, D. M., Guadagnini, A., Ptak, T.
  2007; 43 (10)
- **Analytical models of contaminant transport in coastal aquifers** *ADVANCES IN WATER RESOURCES*
  Bolster, D. T., Tartakovsky, D. M., Dentz, M.
  2007; 30 (9): 1962-1972
- **Nearest-neighbor classification for facies delineation** *WATER RESOURCES RESEARCH*
  Tartakovsky, D. M., Wohlberg, B., Guadagnini, A.
  2007; 43 (7)
- **Probabilistic risk analysis in subsurface hydrology** *GEOPHYSICAL RESEARCH LETTERS*
  Tartakovsky, D. M.
  2007; 34 (5)
- **Ergodicity of pumping tests** *WATER RESOURCES RESEARCH*
  Sanchez-Vila, X., Tartakovsky, D. M.
  2007; 43 (3)
- **Stochastic modeling of complex systems** *COMPUTING IN SCIENCE & ENGINEERING*
  Tartakovsky, D. M., Xiu, D.
  2007; 9 (2): 8-9
- **Particle methods for simulation of subsurface multiphase fluid flow and biogeochemical processes** *SCIDAC 2007: SCIENTIFIC DISCOVERY THROUGH ADVANCED COMPUTING*
  Meakin, P., Tartakovsky, A., Scheibe, T., Tartakovsky, D., Redden, G., Long, P. E., Brooks, S. C., Xu, Z.
  2007; 78
- **Hybrid numerical methods for multiscale simulations of subsurface biogeochemical processes** *SCIDAC 2007: SCIENTIFIC DISCOVERY THROUGH ADVANCED COMPUTING*
  Scheibe, T. D., Tartakovsky, A. M., Tartakovsky, D. M., Redden, G. D., Meakin, P.
  2007; 78
- **Stochastic analysis of transport in tubes with rough walls** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Tartakovsky, D. M., Xiu, D.
  2006; 217 (1): 248-259
- **Multivariate sensitivity analysis of saturated flow through simulated highly heterogeneous groundwater aquifers** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Winter, C. L., Guadagnini, A., Nychka, D., Tartakovsky, D. M.
  2006; 217 (1): 166-175
- **Delay mechanisms of non-Fickian transport in heterogeneous media** *GEOPHYSICAL RESEARCH LETTERS*
  Dentz, M., Tartakovsky, D. M.
  2006; 33 (16)
- **Variable-density flow in porous media** *JOURNAL OF FLUID MECHANICS*
  Dentz, M., Tartakovsky, D. M., Abarca, E., Guadagnini, A., Sanchez-Vila, X., Carrera, J.
  2006; 561: 209-235
- **Asymptotic analysis of cross-hole hydraulic tests in fractured granite** *GROUND WATER*
  Illman, W. A., Tartakovsky, D. M.
  2006; 44 (4): 555-563
- **Numerical methods for differential equations in random domains** *SIAM JOURNAL ON SCIENTIFIC COMPUTING*
  Xiu, D., Tartakovsky, D. M.
  2006; 28 (3): 1167-1185

- **Subsurface characterization with support vector machines** *IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING*
  Wohlberg, B., Tartakovsky, D. M., Guadagnini, A.
  2006; 44 (1): 47-57
- **Asymptotic analysis of cross-hole pneumatic injection tests in unsaturated fractured tuff** *ADVANCES IN WATER RESOURCES*
  Illman, W. A., Tartakovsky, D. M.
  2005; 28 (11): 1217-1229
- **Algorithm refinement for stochastic partial differential equations: II. Correlated systems** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Alexander, F. J., Garcia, A. L., Tartakovsky, D. M.
  2005; 207 (2): 769-787
- **Noise in algorithm refinement methods** *COMPUTING IN SCIENCE & ENGINEERING*
  Alexander, F. J., Tartakovsky, D. M., Garcia, A. L.
  2005; 7 (3): 32-38
- **Asymptotic analysis of three-dimensional pressure interference tests: A point source solution** *WATER RESOURCES RESEARCH*
  Illman, W. A., Tartakovsky, D. M.
  2005; 41 (1)
- **Delineation of geologic facies with statistical learning theory** *GEOPHYSICAL RESEARCH LETTERS*
  Tartakovsky, D. M., Wohlberg, B. E.
  2004; 31 (18)
- **Probabilistic reconstruction of geologic facies** *JOURNAL OF HYDROLOGY*
  Guadagnini, L., Guadagnini, A., Tartakovsky, D. M.
  2004; 294 (1-3): 57-67
- **Nonlocal and localized analyses of conditional mean transient flow in bounded, randomly heterogeneous porous media** *WATER RESOURCES RESEARCH*
  Ye, M., Neuman, S. P., Guadagnini, A., Tartakovsky, D. M.
  2004; 40 (5)
- **Transient flow in a heterogeneous vadose zone with uncertain parameters** *VADOSE ZONE JOURNAL*
  Tartakovsky, A. M., Garcia-Naranjo, L., Tartakovsky, D. M.
  2004; 3 (1): 154-163
- **Uncertainty quantification for flow in highly heterogeneous porous media** *COMPUTATIONAL METHODS IN WATER RESOURCES, VOLS 1 AND 2*
  Xiu, D., Tartakovsky, D. M.
  2004; 55: 695-703
- **Effective properties of random composites** *SIAM JOURNAL ON SCIENTIFIC COMPUTING*
  Tartakovsky, D. M., Guadagnini, A.
  2004; 26 (2): 625-635
- **A two-scale nonperturbative approach to uncertainty analysis of diffusion in random composites** *MULTISCALE MODELING & SIMULATION*
  Xiu, D. B., Tartakovsky, D. M.
  2004; 2 (4): 662-674
- **A perturbation solution to the transient Henry problem for seawater intrusion** *COMPUTATIONAL METHODS IN WATER RESOURCES, VOLS 1 AND 2*
  Tartakovsky, D. A., Guadagnini, A., Sanchez-Vila, X., Dentz, M., Carrera, J.
  2004; 55: 1573-1581
- **A perturbation solution to the transient Henry problem for seawater intrusion** *COMPUTATIONAL METHODS IN WATER RESOURCES, VOLS 1 AND 2*
  Tartakovsky, D. A., Guadagnini, A., Sanchez-Vila, X., Dentz, M., Carrera, J.
  2004; 55: 1573-1581

- **Stochastic analysis of effective rate constant for heterogeneous reactions** *ModelCARE 2002 Conference*
  Lichtner, P. C., Tartakovsky, D. M.
  SPRINGER.2003: 419–29
- **Random domain decomposition for flow in heterogeneous stratified aquifers** *ModelCARE 2002 Conference*
  Guadagnini, A., Guadagnini, L., Tartakovsky, D. M., Winter, C. L.
  SPRINGER.2003: 394–407
- **Stochastic averaging of nonlinear flows in heterogeneous porous media** *JOURNAL OF FLUID MECHANICS*
  Tartakovsky, D. M., Guadagnini, A., Riva, M.
  2003; 492: 47-62
- **Unsaturated flow in heterogeneous soils with spatially distributed uncertain hydraulic parameters** *JOURNAL OF HYDROLOGY*
  Tartakovsky, D. M., Lu, Z. M., Guadagnini, A., Tartakovsky, A. M.
  2003; 275 (3-4): 182-193
- **Algorithm refinement for Stochastic partial differential equations** *RAREFIED GAS DYNAMICS*
  Alexander, F. J., Garcia, A. L., Tartakovsky, D. M.
  2003; 663: 915-922
- **PDF methods for reactive transport in porous media** *Conference on Calibration and Reliability in Groundwater Modelling (ModelCARE 2002)*
  Tartakovsky, D. M., Lichtner, P. C., Pawar, R. J.
  INT ASSOC HYDROLOGICAL SCIENCES.2003: 162–67
- **Solution of moment equations of groundwater flow in random composite layered aquifers** *Conference on Calibration and Reliability in Groundwater Modelling (ModelCARE 2002)*
  Guadagnini, A., Guadagnini, L., Tartakovsky, D. M., Winter, C. L.
  INT ASSOC HYDROLOGICAL SCIENCES.2003: 108–14
- **Moment differential equations for flow in highly heterogeneous porous media** *SURVEYS IN GEOPHYSICS*
  Winter, C. L., Tartakovsky, D. M., Guadagnini, A.
  2003; 24 (1): 81-106
- **Algorithm refinement for stochastic partial differential equations. I. Linear diffusion** *JOURNAL OF COMPUTATIONAL PHYSICS*
  Alexander, F. J., Garcia, A. L., Tartakovsky, D. M.
  2002; 182 (1): 47-66
- **Localization of mean flow and apparent transmissivity tensor for bounded randomly heterogeneous aquifers** *TRANSPORT IN POROUS MEDIA*
  Tartakovsky, D. M., Guadagnini, A., Ballio, F., Tartakovsky, A. M.
  2002; 49 (1): 41-58
- **Groundwater flow in heterogeneous composite aquifers** *WATER RESOURCES RESEARCH*
  Winter, C. L., Tartakovsky, D. M.
  2002; 38 (8)
- **Theoretical interpretation of a pronounced permeability scale effect in unsaturated fractured tuff** *WATER RESOURCES RESEARCH*
  Hyun, Y., Neuman, S. P., Vesselinov, V. V., Illman, W. A., Tartakovsky, D. M., Di Federico, V.
  2002; 38 (6)
- **Numerical solutions of moment equations for flow in heterogeneous composite aquifers** *WATER RESOURCES RESEARCH*
  Winter, C. L., Tartakovsky, D. M., Guadagnini, A.
  2002; 38 (5)
- **Conditional moment analysis of steady state unsaturated flow in bounded, randomly heterogeneous soils** *WATER RESOURCES RESEARCH*
  Lu, Z. M., Neuman, S. P., Guadagnini, A., Tartakovsky, D. M.
  2002; 38 (4)
- **Nonlocal and localized analyses of conditional mean transient flow in bounded, randomly nonuniform domains** *COMPUTATIONAL METHODS IN WATER RESOURCES, VOLS 1 AND 2, PROCEEDINGS*

Ye, M., Neuman, S. P., Guadagnini, A., Tartakovsky, D. M.
2002; 47: 1155-1162

- **Mean and variance of DNAPL finger development in a saturated, randomly heterogeneous porous medium** *COMPUTATIONAL METHODS IN WATER RESOURCES, VOLS 1 AND 2, PROCEEDINGS*
  Tartakovsky, A. M., Neuman, S. P., Tartakovsky, D. M.
  2002; 47: 1307-1314
- **Theoretical foundation for conductivity scaling** *GEOPHYSICAL RESEARCH LETTERS*
  Winter, C. L., Tartakovsky, D. M.
  2001; 28 (23): 4367-4369
- **Prior mapping for nonlinear flows in random environments** *PHYSICAL REVIEW E*
  Tartakovsky, D. M., Guadagnini, A.
  2001; 64 (3)
- **Dynamics of free surfaces in random porous media** *SIAM JOURNAL ON APPLIED MATHEMATICS*
  Tartakovsky, D. M., Winter, C. L.
  2001; 61 (6): 1857-1876
- **Kinematic structure of minipermeameter flow** *WATER RESOURCES RESEARCH*
  Tartakovsky, D. M., Moulton, J. D., Zlotnik, V. A.
  2000; 36 (9): 2433-2442
- **Effective hydraulic conductivity and transmissivity for heterogeneous aquifers** *MATHEMATICAL GEOLOGY*
  Tartakovsky, D. M., Guadagnini, A., Guadagnini, L.
  2000; 32 (6): 751-759
- **Mean flow in composite porous media** *GEOPHYSICAL RESEARCH LETTERS*
  Winter, C. L., Tartakovsky, D. M.
  2000; 27 (12): 1759-1762
- **An analytical solution for two-dimensional contaminant transport during groundwater extraction** *JOURNAL OF CONTAMINANT HYDROLOGY*
  Tartakovsky, D. M.
  2000; 42 (2-4): 273–83
- **Effective hydraulic conductivity in multiscale random fields with truncated power variograms** *Symposium on Theory, Modeling, and Field Investigation in Hydrogeology in Honor of Shlomo P Neumans 60th Birthday*
  Di Federico, V., Tartakovsky, D. M.
  GEOLOGICAL SOC AMER INC.2000: 81–89
- **Stochastic analysis of groundwater pumping from bounded, randomly heterogeneous aquifers** *Symposium on Theory, Modeling, and Field Investigation in Hydrogeology in Honor of Shlomo P Neumans 60th Birthday*
  Guadagnini, A., Tartakovsky, D. M.
  GEOLOGICAL SOC AMER INC.2000: 73–79
- **Propagation of measurement errors in reservoir modeling** *XIIIth International Conference on Computational Methods in Water Resources*
  Pawar, R. J., Tartakovsky, D. M.
  A A BALKEMA PUBLISHERS.2000: 15–20
- **Direct solution of unsaturated flow in randomly heterogeneous soils** *XIIIth International Conference on Computational Methods in Water Resources*
  Lu, Z. M., Neuman, S. P., Guadagnini, A., Tartakovsky, D. M.
  A A BALKEMA PUBLISHERS.2000: 785–792
- **Three-dimensional steady state flow to a well in a randomly heterogeneous aquifer** *ModelCARE 1999 Conference*
  Riva, M., Guadagnini, A., Neuman, S. P., Tartakovsky, D. M.
  INT ASSOC HYDROLOGICAL SCIENCES.2000: 131–36

- **Anisotropy, lacunarity, and upscaled conductivity and its autocovariance in multiscale random fields with truncated power variograms** *WATER RESOURCES RESEARCH*
  Di Federico, V., Neuman, S. P., Tartakovsky, D. M.
  1999; 35 (10): 2891-2908
- **Extension of "Transient flow in bounded randomly heterogeneous domains, 1, Exact conditional moment equations and recursive approximations"** *WATER RESOURCES RESEARCH*
  Tartakovsky, D. M., Neuman, S. P.
  1999; 35 (6): 1921-1925
- **Conditional stochastic averaging of steady state unsaturated flow by means of Kirchhoff transformation** *WATER RESOURCES RESEARCH*
  Tartakovsky, D. M., Neuman, S. P., Lu, Z. M.
  1999; 35 (3): 731-745
- **Some aspects of head-variance evaluation** *COMPUTATIONAL GEOSCIENCES*
  Tartakovsky, D. M., Mitkov, I.
  1999; 3 (1): 89-92
- **Dynamics of wetting fronts in porous media** *PHYSICAL REVIEW E*
  Mitkov, I., Tartakovsky, D. M., Winter, C. L.
  1998; 58 (5): R5245-R5248
- **Transient flow in bounded randomly heterogeneous domains 2. Localization of conditional mean equations and temporal nonlocality effects** *WATER RESOURCES RESEARCH*
  Tartakovsky, D. M., Neuman, S. P.
  1998; 34 (1): 13-20
- **Transient flow in bounded randomly heterogeneous domains 1. Exact conditional moment equations and recursive approximations** *WATER RESOURCES RESEARCH*
  Tartakovsky, D. M., Neuman, S. P.
  1998; 34 (1): 1-12
- **Transient effective hydraulic conductivities under slowly and rapidly varying mean gradients in bounded three-dimensional random media** *WATER RESOURCES RESEARCH*
  Tartakovsky, D. M., Neuman, S. P.
  1998; 34 (1): 21-32
- **An analytical solution for contaminant transport in nonuniform flow** *TRANSPORT IN POROUS MEDIA*
  Tartakovsky, D. M., Di Federico, V.
  1997; 27 (1): 85-97
- **Effective hydraulic conductivity of bounded, strongly heterogeneous porous media** *WATER RESOURCES RESEARCH*
  Paleologos, E. K., Neuman, S. P., Tartakovsky, D.
  1996; 32 (5): 1333-1341