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ACADEMIC APPOINTMENTS

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Publications

PUBLICATIONS

- **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

- **Data-Informed Method of Distributions for Hyperbolic Conservation Laws** *SIAM Journal on Scientific Computing*
  Boso, F., Tartakovsky, D. M.
  2020; 42 (1): 25

- **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

- **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

- **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

- **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

- **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

- **A theoretical framework for modeling dilution enhancement of non-reactive solutes in heterogeneous porous media** *Journal of Contaminant Hydrology*
de Barros, F. J., Fiori, A., Boso, F., Bellin, A.
2015; 175: 72–83

- 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)

- Homogenizability conditions for multicomponent reactive transport *ADVANCES IN WATER RESOURCES*
Boso, F., Battiato, I.
2013; 62: 254-265

- Performance analysis of statistical spatial measures for contaminant plume characterization toward risk-based decision making *WATER RESOURCES RESEARCH*
Boso, F., de Barros, F. J., Fiori, A., Bellin, A.
2013; 49 (6): 3119–32

- Numerical simulations of solute transport in highly heterogeneous formations: A comparison of alternative numerical schemes *ADVANCES IN WATER RESOURCES*
Boso, F., Bellin, A., Dumbser, M.
2013; 52: 178–89

- Mixing processes in highly heterogeneous formations
Boso, F., Bellin, A., Oswald, S. E., Kolditz, O., Attinger, S.
INT ASSOC HYDROLOGICAL SCIENCES.2012: 217–22

- An indirect assessment on the impact of connectivity of conductivity classes upon longitudinal asymptotic macrodispersivity *WATER RESOURCES RESEARCH*
2010; 46