

## Publication List

### Theses

B-Phil Thesis (with Xinfu Chen): “Analytical and numerical results on escape”- University of Pittsburgh (2011)

Ph. D. Thesis (with Govind Menon): “Nonlinear Conservation Laws with Random Initial Conditions and the N-point Probability Function Hierarchy” – Brown University (2017)

### Refereed Journal Articles

1. [Analytical and numerical results for first escape time in 2D](#) (with Xinfu Chen) - Comptes Rendus, C. R. Acad. Sci. Paris, Ser. I 349 (2011) 191–194
2. [Analytical and numerical results for an escape problem](#) (with Xinfu Chen) - Archive for Rat. Mech. Analysis 203 (2012) 329–342
3. [Effects of white noise in multistable dynamics](#) (with Xinfu Chen, Jianghao Hao and Yajing Zhang) - Discrete and Continuous Dynamical Systems B, 18 (2013)1805-1825
4. [Valuation, Liquidity Price, and Stability of Cryptocurrencies](#) with G. Caginalp. Proc. Nat. Acad. Sci. 115 (2018) 1131-1134.
5. [The Quotient of Normal Random Variables and Application to Asset Price Fat Tails](#), with G. Caginalp. Physica A 499 (2018) 457-471
6. [Hierarchies of N-point Functions for Nonlinear Conservation Laws with Random Initial Data](#), Physica A, in press.
7. [Minimization Solutions to Conservation Laws with Non-smooth and Non-Strictly Convex Flux](#), AIMS Mathematics, 2018, 3(1): 96-130. doi: 10.3934/Math.2018.1.96.
8. [A Minimization Approach to Conservation Laws with Random Initial Conditions and Non-smooth and Non-Strictly Convex Flux](#), AIMS Mathematics, 3(1): 148-182. Doi: 10.3934/Math.2018.1.148
9. “[A Dynamical Systems Approach to Cryptocurrency Stability](#),” submitted.
10. “A Survey of Results on Conservation Laws with Random and Deterministic Data”, accepted, DCDS Series B
11. “Derivations of the N-point Hierarchy for a Nonlinear Conservation Law with Random Data”, submitted.
12. “Solutions to Conservation Laws with Non-Smooth, Non-Uniformly Convex Flux Functions with Deterministic and Random Initial Data”, submitted
13. “Cryptocurrency Equilibria Through Game Theoretic Optimization” with G. Caginalp, submitted.
14. “Asset Price Volatility and Price Extrema” with G. Caginalp, submitted.
15. “Stochastic asset price dynamics and volatility using a symmetric supply and demand price equation” with G. Caginalp, submitted.
16. “Price Equations with Symmetric Supply/Demand; Implications for Fat Tails,” with G. Caginalp, Preprint.