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Faculty - Daniele Veneziano



Daniele Veneziano

Professsor

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Education

- ⁻ Laurea in Architecture 1970, University of Florence, Italy
- Ph.D. in Civil Engineering 1974, MIT

Research Interests

- Natural Hazards
- ⁻ Risk Assessment for Engineering Systems
- Stochastic Hydrology and Geomorphology
- Scale-Invariant Phenomena

Teaching Interests

- ⁻ Probability and Statistics in Engineering
- Risk Analysis

Selected Publications

- D. Veneziano, R. L. Bras, and J. D. Niemann, "Nonlinearity and Selfsimilarity of Rainfall in Time and a Stochastic Model," *J. Geophys. Res.* -*Atmospheres*, 101(D21): 26,371-26,392, 1996.
- D. Veneziano and P. Villani, "Identification of Rain Cells fromRadar and Stochastic Modelling of Space-time Rainfall," *Meccanica*, 31: 27-42, 1996.
- D. Veneziano, and J. Van Dyck, "Risk Analyes for the Messina Bridge,"in *Bridge Aerodynamics*, Larsen and Esdahl (eds.), Balkema, 1998.
- D. Veneziano and A. G. Papadimitriou, "Optimization of the SeismicEarly Warning System for the Tohoku Shinkansen," *Proceedings, 11thEuropean Conf. On Earthquake Engineering,* Balkema, Rotterdam, 1998.
- D. Veneziano and V. Iacobellis, "Self-similarity and Multifractalityof Topographic Surfaces at Basin and Sub-basin Scales," *J. Geophys.Res.*, 104(B6): 12,797-12,812, 1999.
- 6. D, Veneziano and P. Villani, "Best Linear Unbiased

- Hyetograph." Water Resour. Res., 35(9): 2725-2738, 1999.
- D. Veneziano, "Basic Properties and Characterization of StochasticallySelf-similar Processes in Rd," *Fractals*, 7(1): 59-78, 1999.
- 8. D. Veneziano and P. Furcolo, "A Modified Double Trace Moment Methodof Multifractal Analysis," *Fractals*, 7(2): 181-195, 1999.
- D. Veneziano and J. D. Niemann, "Self-similarity and Multifractalityof Fluvial Erosion Topography: 1. Mathematical Conditions and Physical Origin," *Water Resour. Res.*, in print, 2000.
- D. Veneziano and J. D. Niemann, "Self-similarity and Multifractalityof Fluvial Erosion Topography: 2. Scaling Properties," *Water Resour.Res.*, in print, 2000.
- D. Veneziano, "Uncertainty Quantification and Decision in ComplexProjects with Long-lasting Consequences," *Nuclear Waste TechnicalReview Board Meeting*, Las Vegas, 2000.
- D. Veneziano, G. E. Moglen, P. Furcolo, and V. Iacobellis, "StochasticModel of the Width Function," *Water Resour. Res.*, in print,2000



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