Doris Dobi

Contact Information

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Research Interests

Quantitative Finance, Financial Modeling, Investment Strategies, Probability

Education

Courant Institute of Mathematical Sciences (CIMS), New York, New York USA
Ph.D. in Mathematics, May 2014

Massachusetts Institute of Technology (MIT), Cambridge, Massachusetts USA
B.S., Mathematics, minor in Economics, May, 2009

Honors and Awards

- National Science Foundation Graduate Research Fellowship (2009)
- National Defense Science and Engineering Graduate Fellowship (2009)
- Cuthbert C. Hurd Scholarship in Mathematical Sciences (MIT 2008 and 2009)
- Alice T. Schafer mathematics prize runner-up from the association of women in math (2009)
- Math research 1st prize winner at the MAA and AMS Math Joint Meetings (2008 and 2009)
- Elder and Leemaur Publishers featured "Authors of Tomorrow" (2007)

Financial Modeling Projects Undertaken

- Performed liquidity risk analysis of FHLB and FFCB bonds.
- Worked on pair-trading of LETFs based on "slippage-effect".
- Constructed pair-trades based on cointegrating pairs.
- Build risk-neutral density from options data to spot possible arbitrage opportunities.

Publications

Modeling Volatility Risk in Equity Options Market: A Statistical Approach, Quantitative Finance, publication pending.

Price Inefficiency and Stock-Loan Rates Of Leveraged ETFs, Risk Magazine, Summer 2013.

Supersingular rank two Drinfel'd modules and analogues of Atkin's orthogonal polynomials, International Journal of Number Theory, 2008.
(http://www.math.wisc.edu/∼ono/2007reu_doris_nick_irena.pdf)

Using Quaternions to Model Billiard Trajectories, MIT Undergraduate Journal of Mathematics, June 2007.

Academic Experience and Work History

Goldman Sachs, New York, NY USA
Equity Strategist — July 2014 - Present

Courant Institute of Mathematical Sciences (CIMS), New York, NY USA
Graduate Student — August 2009 - May 2014

Goldman Sachs, New York, NY USA
Interned as a strategist in Goldman Sachs' divisional risk team — Summer 2013

Massachusetts Institute of Technology (MIT), Cambridge, MA USA
Undergraduate Student September 2005 - May 2009

Director's Summer Program, Fort Meade, MD USA
Part of team that developed top-secret encryption schemes May 2009 - August 2009

Girl's Angle Mathematics Mentor and Tutor, Cambridge, MA USA
Mentored and taught mathematics to middle-school girls October 2008 - May 2009

Regular speaker and organizer of math lecture series at MIT, Cambridge, MA USA
Founded math club at MIT 2005 - 2009

Summer Program in Analysis and Geometry, Princeton, NJ USA
Covered the Navier-Stokes equations, differential geometry, and problems in pdes Summer 2008

Research Experience for Undergraduates, Madison, WI USA
Researched modular forms and elliptic curves. Constructed an analog of Atkin orthogonal polynomials for rank two Drinfel'd modules Summer 2007

SKILLS

- **Languages:** Fluent in Albanian, proficient in Spanish
- **Computer Languages:** Python, MatLab, Excel VBA, LaTeX