



## Ph.D. Dissertation Defense

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<b>Degree:</b>	Doctor of Philosophy
<b>School/Department.:</b>	School of Business / Financial Engineering
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<b>Location:</b>	Online ( <a href="https://stevens.zoom.us/j/96626438556">https://stevens.zoom.us/j/96626438556</a> )
<b>Title:</b>	Impact of Retail Investor Attention on Option Returns Examined With Two Novel Nonparametric Tests
<b>Chairpersons:</b>	Dr. Ionut Florescu, Financial Engineering, School of Business Dr. Chihoon Lee, Analytics & Decision Sciences, School of Business
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### Abstract

The growth of retail investor participation in the options market has raised important questions about the impact of investor behavior on market outcomes. In this dissertation, we investigate the impact of retail investor attention on option returns using two novel causality tests. To do this, we first design a valid measure of investor attention using web analytics and validate it using several metrics.

Next, we discuss our two novel causality tests. We first prove an important theorem which allows us to transform the problem of conditional causality testing into a simpler unconditional test. Second, we use this theorem to design our novel tests: the Probability Integral Transform Classification Hypothesis (PITCH) test and the Dynamic Exponential Smoothed Kernel (DESK) test.

Finally, we apply both tests to our data set and determine that investor attention forecasts option returns even when controlling for other factors. We explore these results and find that investor attention is a significant factor in several option return forecasting models, and it is also significant when forecasting the second of returns. Our findings suggest that options favored by retail investors tend to be riskier, which provides new insights into the dynamics of options markets.