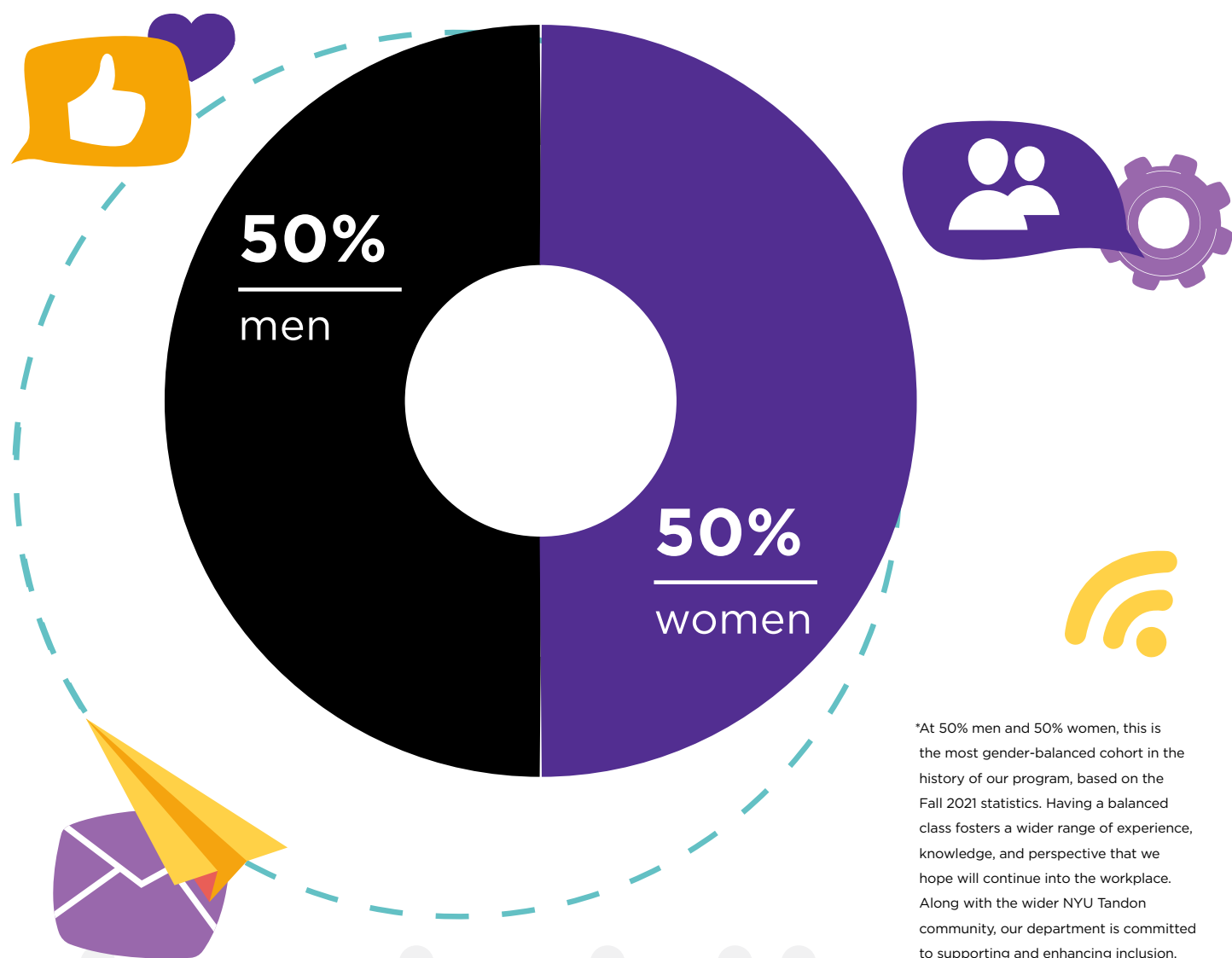


Catching FIRE

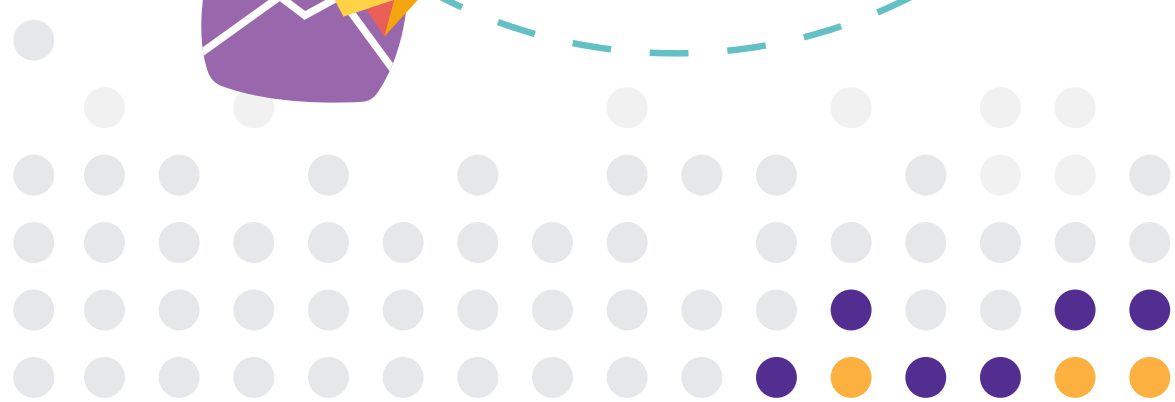
THE OFFICIAL NEWSLETTER OF THE NYU TANDON DEPARTMENT OF FINANCE AND RISK ENGINEERING

NYU Tandon officially reopened this fall after Covid-19 caused the school to cease in-person learning for 18 months. Despite the worldwide pandemic, the graduate admissions applications to our program increased, and we are proud that our incoming student body is evenly split between genders*.



*At 50% men and 50% women, this is the most gender-balanced cohort in the history of our program, based on the Fall 2021 statistics. Having a balanced class fosters a wider range of experience, knowledge, and perspective that we hope will continue into the workplace. Along with the wider NYU Tandon community, our department is committed to supporting and enhancing inclusion, diversity, belonging, and equity (IDBE) among students, faculty, and staff.

Disclaimer: University data currently uses the language of "sex" to describe the gendered makeup of our community. This data does not include information ground gender identity that is inclusion of transgender, non-binary, and other gender identities beyond male and female.





Letter from Department Chair: Peter Carr

As the department chair writing this “letter from the chair” (while seated of course), we have just concluded a long Thanksgiving weekend. We in FRE have a lot to be thankful for. After not seeing colleagues and students in the office from March 2020 to August 2021, we have now completed our third month back. Since the mandatory mask-wearing hides my smile, allow me to use this forum to express my unmitigated joy at this return to normalcy.

The three-month period from November to January is rankings season. FRE participates in three external rankings by providing data that we collect on student, staff, faculty, and alumni success. Quantnet released their 2022 rankings in mid-November 2021 at <https://quantnet.com/mfe-programs-rankings/>.

To summarize, FRE’s Master of Science in Financial Engineering moved up one spot into a tie with NYU Courant’s Masters in Mathematical Finance for seventh place. While we are obviously pleased with this continued rise, it must be emphasized that we measure our own success differently than Quantnet. There are many metrics for success, and Quantnet captures but a few. For example, they completely ignore easily measurable metrics such as the number of distinct courses offered each year, the average class size in each year, and the number of faculty publications and citations in each year. Anyone who has the least bit of familiarity with pedagogy knows that average class size (which differs from cohort size) is a prime determinant of learning success.

Similarly, anyone familiar with higher education in general also knows that tenured and tenure-track faculty are heavily rewarded for publications and citations because they contribute to the university’s overall status. Instead of directly measuring the number of distinct courses offered, the average class size, and the number of faculty publications and citations, Quantnet contents itself with an aggregate and subjective measure of these metrics called Peer Assessment. As one of roughly 30 program directors asked to assess peers, I can say the flaws in this measure are all too apparent. Assigning a meaningful numerical value between one and five to 30 or so competing programs is practically impossible, especially during a worldwide pandemic.

As a result, I interpret our rise in this metric — and more importantly our one-spot rise this year in Quantnet’s ranking — as statistical noise. That said, I interpret the longer-term trend reported in the following article as much more meaningful. Just as physicists ignore insignificant digits, a simple way to interpret incomplete rankings is to bucket units into larger quantities (e.g. tens). As a result, our move from the second tier into the top ten, which has been sustained after repeated measurements, does carry meaning.

As Thanksgiving weekend recedes from view, allow me to close by giving my thanks to my full-time and part-time colleagues, to our wonderful staff, and most of all, to our incomparable students, who have wisely placed their faith in our efforts. This move would not have happened without them, just as progressing into the top five will rely upon continually upping our game.



NYU Tandon's Master's Program in Finance and Risk Engineering Continues its Steady Climb in the Rankings

When Peter Carr arrived at the NYU Tandon School of Engineering to become chair of the Department of Finance and Risk Engineering (FRE) in 2016, it made headlines that the former Morgan Stanley managing director and head of market modeling was leaving the heady environs of Wall Street to help train a new generation of financial professionals — people ready to meet the burgeoning global demand for machine learning expertise and the ability to work with sophisticated modeling and information technology.

Carr's arrival marked a new era for the financial engineering program — launched in 1995 as the second such program in the country and the first to be certified by the International Association of Financial Engineers (IAFE). While the program had long bridged theory and practice and attracted a roster of internationally recognized financial practitioners as faculty members, Carr began focusing on preparing students for careers that barely existed in 1995, such as high-speed trading, and for risk engineering careers that increased in complexity and demand with the Dodd-Frank law that arose from the financial crisis of 2007-2008. Among the changes implemented after conducting focus groups with stakeholders were replacing accounting as a core course with machine learning for finance and adding flexibility to the core requirements — and more developments followed from there.

Those efforts have had tangible results: each year since Carr's arrival, the FRE program has risen in rankings compiled by multiple organizations. Among the most respected and authoritative of these organizations is QuantNet, which evaluates financial engineering programs across the country on the basis of employment rate, starting salary, and academic rigor, among other factors. (QuantNet.com is the largest online community of master's of financial engineering applicants, with more than 50,000 community members, newsletter subscribers, and social networking followers since its start in 2006.)

In 2017, the first full year after Carr took the helm, the program jumped a full three spots, from 16 in 2016 to 13. The following year it climbed another spot and then in 2019 leapt into the top-10 at number nine. A new decade saw FRE perch at number eight in 2021, and in the latest 2022 rankings (released in mid-November of 2021), NYU Tandon appeared at number seven — its highest spot yet, and tied with NYU Courant's math finance program, which Carr previously led.

Carr — a highly regarded researcher who is ranked fourth in the world by Google Scholar in Financial Engineering citations, third in Quantitative Finance, second in Derivatives, and first in Volatility — credits some of that impressive trajectory to Sara (Tomeo) DeLusant, a former Morgan Stanley colleague who joined FRE in early 2017 as Career Placement Director, a vital role given that one of the Department's primary goals is training professionals who are well-equipped for a changing financial workforce, and much of the rankings methodology relies on employment statistics. This year, more than three-quarters of FRE grads had received job offers by the time they earned their degrees, and three months after graduation, almost all had secured good jobs, with an average starting salary of more than \$96,000.

"In addition to Sara, there are many others who have contributed to our solid performance," says Carr, whose name and department are among the most searched on the NYU Tandon website. "Professors Barry Blecherman, David Shimko, and Agnes Tourin each function as a metaphoric right hand for me, not only teaching but advising, running our online bootcamp, and overseeing our admissions process; our industry-savvy adjuncts bring a wealth of real-world experience to their classrooms; and our dedicated staff members play an enormous role in keeping the entire operation running smoothly."

"These latest rankings — and the upward trend they represent — affirm the high caliber of the work being done by everyone in the Department of Finance and Risk Engineering," said Jelena Kovačević, dean of the NYU Tandon School of Engineering. "We like to say that at Tandon we're educating unconventional engineers, those unafraid to break down the usual notions of what engineers can do and how they should think. Our FRE grads meet that definition: they're pushing the boundaries in their field, which is becoming increasingly reliant on machine learning and algorithmic ability, and shaping the future of the entire financial industry."



Peter Carr Maintains a Busy Schedule to Stay Connected with Students and the Financial World

Peter Carr was an invited guest speaker at the 2021 Society of Financial Econometrics (SOFiE) Summer School, held via Zoom by Northwestern University's Kellogg School of Management in July, with the overall theme "The Econometrics of Derivatives Markets." Carr's presentation, "When Can We Hedge or Price without Full Model Knowledge," addressed the issues surrounding parametric models that are widely used in derivatives and hedging.

The Canadian Derivatives Institute held its 10th scientific conference in a hybrid format this past September, and Carr presented his paper "Stoptions: Representations and Applications," which introduces a novel derivative security: After paying an upfront premium, the owner of a "stoption" accrues realized price changes in some underlying security until the exposure is stopped by the owner. Upon stopping, the reward is the sum of all of the previous price changes plus a deterministic amount which can vary with the stopping time. (Stoptions are finite-lived and hence must be stopped at or before a fixed maturity date.)

Carr also gave a Brooklyn Quant Experience (BQE Lecture) at the NYU Tandon School of Engineering on October 14th, during which he discussed the topic of "Optionality as a Binary Operation."

In addition to those speaking engagements, Carr meets biweekly with the FRE Bulls and Bears Club at NYU Tandon. The well-attended meetings allow club members to receive departmental updates, discuss special topics in finance, and interact closely with the department chair.



Brooklyn Quant Experience (BQE) Lecture Series Resumed In-Person for Fall 2021

The FRE Kickoff Lecture took place this fall, with Retired Distinguished Professor Nassim N. Taleb speaking on September 23 to an in-person audience. Taleb's talk, "What are the Technical Errors on Covid?" discussed the mathematical and computational models for the spreading and the implications of epidemics, which often ignore the tail risk of contagious diseases, and argued for taking an extreme value theory (EVT) approach.

THE FULL BQE LECTURE SERIES FOR INVITED GUEST SPEAKERS FROM THE FINANCIAL INDUSTRY AND ACADEMIA:

SEPTEMBER 30	Charles Fishkin, Adjunct Professor, Financial Engineering at Baruch College
OCTOBER 7	Mike Lipkin, Visiting Professor, NYU Tandon School of Engineering, FRE
OCTOBER 14	Peter Carr, Department Chair, NYU Tandon School of Engineering, FRE
OCTOBER 21	David Shimko, Industry Full Professor, NYU Tandon School of Engineering, FRE
OCTOBER 28	Federico Bandi, Endowed Professor, John Hopkins University,
NOVEMBER 4	Kim Weston, Assistant Professor of Mathematics, Rutgers University
NOVEMBER 11	Liuren Wu, Distinguished Professor of Finance, Baruch College
NOVEMBER 18	Naresh Malhotra, Professor of Business, NYU Tandon School of Engineering, FRE
DECEMBER 2	Frederic Siboulet, Adjunct Professor, NYU Tandon School of Engineering, FRE
DECEMBER 9	Bruno Kamdem, Professorial Lecturer, The George Washington University

Team Work

FRE students regularly participate in various competitions, giving students practical trading experience that is both outside the classroom and outside the textbook. In recent years they've won national honors at several events.

International Association for Quantitative Finance Competition

Two FRE teams aced this year's International Association for Quantitative Finance (IAQF) Tenth Annual Academic Affiliate Membership Student Competition. The competition required participating teams to submit a paper on this year's theme: predictors of future price expectations. Submissions went through a blind, multi-level selection process and were reviewed by a judging panel composed of IAQF Board Members. Among the four teams ultimately declared winners were:

Team Rocket Fellows, led by captain Supavitch Nakburee (president of the Bulls and Bears Club). Team members included Thumthiti Pinto, Wenjun Jia, Pragnya Dharmigari, Hanlu Xia, and Christopher Abruzzo.

Team Serious Turtles, led by captain Yuhan Xu. Team members included Qin Zhang, Yiwen Zhuang, Lanlan Yang, Lewei Peng, and Shenghua Cao.

Professor Ron Slivka served as advisor and later addressed the teams, writing:

"Congratulations again on your performance. You should be proud of this accomplishment. Thank you for investing your time and talent to structure solutions to the IAQF Student Competition. Challenges such as those found in this competition supplement more formal classwork in an important way by requiring students to think of and create solutions that are both Out of the Textbook and Out of the Classroom, blending theory and practice. I was very pleased to coach NYU Teams in this competition, but all congratulations belong to you, the students who worked so diligently and smartly in devising team solutions."

CME University Trading Challenge

Each year, the Chicago Mercantile Exchange (CME) sponsors a one-month futures trading competition open to teams of five students from accredited colleges and universities in Asia, Europe, and the Americas. This fall semester FRE fielded three teams, coached by Professor Ron Slivka as Faculty Advisor and ably assisted by Zahra Patterson as Competition Administrator.

At the October completion of this year's challenge, two FRE teams placed in the top quarter of the almost 400 registered teams, and a third team, TradeEasy, led by captain Jingzhao Zhang, placed in the top 10 percent of all competitors, as measured by final trading profits. In addition to Zhang, TradeEasy Team members included Yuhan Xu, Xiaolan Yan, Wenyi Huang and Lukuan Wang.

**CONGRATULATIONS TO ALL FRE TEAMS.
WE'RE PROUD OF YOUR PERFORMANCE!**

"Morning Toast" with the 2021 FRE Graduates

This past spring, NYU Tandon did not hold a large in-person commencement ceremony because of the ongoing COVID-19 crisis, but FRE staff still wanted to celebrate and recognize the academic achievements and outstanding leadership skills of our graduates. The solution: the First Annual "Morning Toast," an event honoring our most recent graduates. It began with Professor David Shimko's spirited piano rendition of "Pomp and Circumstance," followed by remarks from Department Chair Peter Carr, who reminded students that even though the world had changed, commencement still meant the beginning of their careers and lives as alumni. Next, Deputy Chair Barry Blecherman shared his thoughts on the Class of 2021's ability to survive and thrive through uncertain circumstances, a strong indicator of their fortitude and potential for future success.

Career Placement Director Sara DeLusant shared her heartfelt wishes in recognizing the graduates, who had navigated through almost unprecedented times, and despite the obstacles, already boasted extremely impressive job outcomes as desk quants, quant researchers, risk managers, data scientists, fixed income traders, equity traders, cryptocurrency trading analysts, and other well-respected positions. (Our graduates had been hired at such reputable firms as Goldman Sachs, Bloomberg, Morgan Stanley, CitiBank, American Express, Barclay's, UBS, JP Morgan, and China International Capital Corporation, to name just a few.) Program Manager Jonnett Romano graciously thanked the students who had stepped up during quarantine to assist the professors and reflected fondly on the bike-riding event some had taken part in during the lockdown. "Be bold, be audacious, and most importantly, be kind," were her parting sentiments.

Professor Shimko presented the Commencement Awards for Outstanding Academic Achievement given to students who maintained a GPA of 3.95 and above. This year's recipients were Boyan Han, Yue Kang, Jiawei Lu, and Ziqi Yuan.

The Superior Leadership and Service Awards given to students who demonstrated exceptional service to the FRE community went to Jose Francisco Rubio, Titash Ghoshal, Sai Theja Vadlamani, Sumit Mahaveer Sethi, Vinay Arun Bharath, Le Zhu, and Sachin Labhishetty. (In addition to the awards, they received the deep gratitude of everyone in the department!)

Student speaker Tishal Ghoshal, from the Bulls and Bears Club, expressed how lucky he felt to participate in the trading clubs with Professor Ron Slivka and work as a

teaching assistant with Professor James Adams, and he thanked his parents and grandparents, who were in attendance via Zoom.

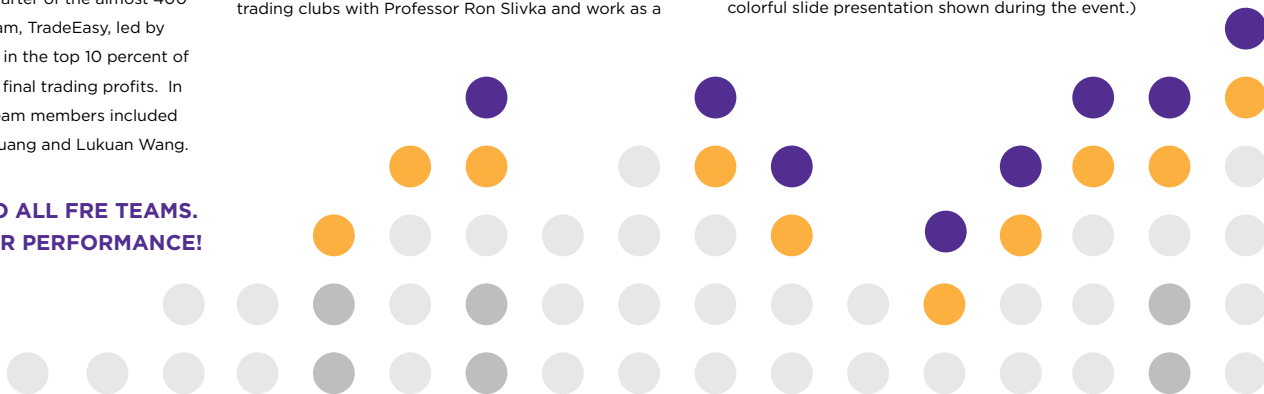
Le Zhu was recognized with the new "Inclusive Excellence Award," given to one student in each academic department for their ability to advance inclusion, belonging, and equity at Tandon. Le shared the upsides of attending the BQE Lecture Series during the pandemic: having access to the recorded BQE lectures and YouTube channels.

The next speaker was Professor James Adams, who recalled giving an impromptu speech when the graduates first entered bootcamp, and now, in a full-circle moment, said he was thankful to be speaking to them as they moved on. Be ready for anything within the financial industry, he advised them, and keep aware of strategic changes going on in the field. Professor Ron Slivka rhetorically asked: if he were the one graduating, what advice would he consider most useful? His answer: have confidence in the knowledge that you can compete with anyone in the financial engineering industry and cultivate professional relationships as your career progresses."

Dean Jelena Kovačević offered closing remarks, expressing her confidence that the graduates were well prepared to keep the global economy safe and growing and saying: Regardless of where you come from, each of you brings your own culture, language, and knowledge--and I'm just so impressed with your ability to command the global language of numbers. Your time here has made you true citizens of Brooklyn, and I predict you're going to make great contributions wherever you go and whatever roles you take on in the future. I hope your time here has also convinced you that in an era of algorithmic finance, it's important for data to be accurate and algorithmic systems to be transparent." She continued, "You had the honor of working with chair Peter Carr and other giants of the finance world, who gave you industry insight and real-world problem-solving skills. I loved reading about your triumphs in national trading competitions, and I've also loved watching as you forged close ties to one another, your professors, and the department's staff members. Remember that you're also a part of our broader NYU Tandon family. You each have that mixture of qualities we call being Tandon-Made, which includes intelligence, determination, and a lot of heart.

Zahra Patterson acted as mistress of ceremonies during the truly memorable celebration, which ended, fittingly, with an offering of "congratulations" in all the languages spoken by the graduating cohort.

(* A special thank you goes to Jennifer Novicki, FRE Assistant Manager of Communications, who created the colorful slide presentation shown during the event.)





Working at the intersection of

Some of the greatest scientific and technological strides occur when different knowledge bases and skill sets come together in unexpected — and unconventional — ways: NYU Tandon data scientists, roboticists, and biomedical engineers have collaborated to improve healthcare, for example, and our electrical and civil engineers have joined forces to bolster the resiliency of power grids.

Similarly, researchers in the Department of Finance and Risk Engineering (FRE) draw upon computer science, artificial intelligence, and applied mathematics to address financial issues and keep the global markets functioning. “We are a flagbearer for the concept of unconventional engineering,” Department Chair Peter Carr asserts. “Within finance, we have historically offered several unconventional courses, focusing on topics such as cryptocurrencies, cloud computing, and automated differentiation.”

Now, the department is ensuring that its graduates can work at the increasingly important intersection of finance and sustainability.

During the Spring 2022 semester, students will be able to take Tandon’s first-ever course on ESG factors, an acronym that refers to environment (encompassing a company’s carbon footprint and overall sustainability efforts), social (which takes into account hiring practices, diversity, and commitment to the broader good), and governance (the ways in which the company’s board and management seek to encourage positive change and stakeholder satisfaction). With a growing number of investors around the world considering these untraditional metrics during their decision-making process, it’s becoming more and more important that financial professionals grasp the complexities of ESG.

The innovative course, FRE-GY 6951 Sustainable Investment, will be taught by new faculty member Bruno Kamdem, whose research explores the institutional and financial risks associated with the climate change crisis. As part of the department’s Brooklyn Quant Experience Lecture Series, Kamdem recently presented a paper that



finance and sustainability

touched upon one of the most dynamic components of sustainable finance : tradable carbon permits.

Governments seeking to reduce pollution, he explained, place a firm limit (or cap) on the amount of greenhouse gases an individual company is permitted to emit; a company that exceeds that amount can face a stiff financial penalty. Those that remain under the cap, however, can auction off their unneeded allowances or bank them for future use, providing a powerful incentive to reduce emissions — particularly as caps are designed to decline over time.

That marketplace is now worth billions of dollars, and in his presentation, Kamdem — who has served as an advisor to the Office of Research, Evaluation, & Statistics at the Social Security Administration and co-founded his own actuarial and consulting firm — described his formulation and pricing of a new carbon auction derivative that deals with the competition-regulation dichotomy involved. (Applying his model to major oil

companies showed that the derivative can be used as a cushioning tool for polluting less while also meeting regulatory standards and making money.)

It's imperative, he asserts, for aspiring financial professionals to be able to quantify ESG factors. "There's a tremendous amount of data out there," he says. "I want my students to be able to make sense of it and use it to build financial models that incorporate sustainability-related metrics."

Given that climate change is already severely impacting economies and financial markets, Kamdem's course is a timely addition to the FRE curriculum, and Carr foresees more trendsetting developments ahead. "We strongly feel that the success of our program and the flexibility of our degree can be leveraged to introduce unconventional financial engineering courses until they are no longer considered so," he says.



Meet the New Bulls and Bears Club Team Members

A Note from Club Co-President Supavitch Nakburee:

I am writing on behalf of the Bulls and Bears Club to introduce our newest core members to everyone.

This semester, I am serving as one of the presidents, and **Kim Zhang**, who was previously a MD of the Corporate Finance team, is stepping up to be **co-president**. Having two presidents, we hope, will enable us to scale up our support of our student body. In addition, we have two general **vice presidents: Vibhor Gupta and Jiaqi (Vanessa) Liang**, who have already planned some projects with broad appeal.

Junming Yang will assume responsibilities as **MD of the Quantitative Research** team. Junming graduated from one of the most well-known universities in China, and he has a year of experience as a quantitative analyst with Derivatives China Capital, making him an ideal candidate for MD. We hope students on the team will learn a lot from him and that he will, in turn, hone his leadership skills.

Raymond Luo, one of my favorite second-year classmates, will be in charge as **MD of the Data Science** team. After having several conversations with Raymond, it became apparent that he is a perfect candidate for the position. His interest in derivatives, as well as data science, is

invaluable, and it is our pleasure to have him alongside the rest of the core members..

Abhishek Kulkarni, a first-year student, has become **MD of the Trading team**. Abhishek is quite experienced in trading, since he used to work for the well-known financial services company MSCI. An interesting fact about this position is that Abhishek also graduated from BIT, Pilani, the alma mater of our previous Trading MD, Sachin Labhishetty. With his experience in trading, he has the potential to make the Trading team a force to be reckoned with.

Tejashri (TJ) Prabhu takes the lead as **MD of the Corporate Finance team**. TJ has had more than four years of experience in financial services and is an expert in valuation. We are confident that she will be an inspiring leader.

As always, I'll offer my thanks to the FRE Department for their support to our student body. As a new year commences, we really look forward to contributing to the MSFE community and being a part of NYU Tandon's success in the future.

Best Regards,
Supavitch Nakburee



Vice President
VIBHOR CHANDRA GUPTA

Class of 2023

Education:

B.Tech. Computer Engineering,
NMIMS University, India

Accomplishments:

Conceptualized a prototype "Loan Default Prediction" Machine Learning model for an "Asset Lending & Securitization" software platform at Tata Consultancy Services

Built a prototype model to forecast the market timing for investing in the Information Technology (IT) Sector, for creating optimized portfolios, at ICICI Prudential Asset Management Company

Developed a Global Trade Finance application powered by blockchain to create a trusted trading corridor for efficient and secure financial trade transactions

Awarded the title of Student Ambassador, which recognises representation and accomplishment in co-curricular and extracurricular activities at NMIMS University

Dean's list for academic excellence at NMIMS University

Goals for B&B :

To spearhead research-oriented activities by giving students a platform to share ideas and innovations. To cultivate an immersive learning environment by exposing students to a variety of interesting topics in the realm of quantitative finance and beyond.



Managing Director, Trading
ABHISHEK KULKARNI

Class of 2023

Education: B.E. Mechanical Engineering, BITS Pilani, India

Accomplishments:

Designed and manufactured the suspension system of a Formula-1 prototype for the Student Formula Racing Team of BITS Pilani participating at SAEINDIA event

Simulated the infamous Geometric Brownian Motion equation on the Indian markets to predict future prices for the Nifty50 Index constituents

Developed a model for ICICI Prudential AMC to identify an appropriate time to enter the Indian Automobile sector using various macroeconomic indicators.

Simulated an algorithm to segregate under- and overvalued stocks in the sector

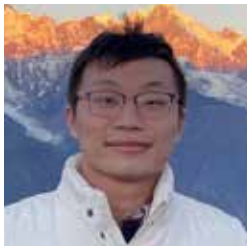
Modeled various Cash Flow Recovery models with Deutsche Bank's Global Credit Ratings Team to analyze recovery potential of various counterparties

Responsible for Financial Modeling of MSCI Inc.'s Run Rate and Revenue derived from the ETF Database. containing more than 75,000+ ETFs of different product categories

Member of BITS' Wallstreet Club, educating students about investing and trading. Head of Portfolio Management team managing a portfolio worth INR 100,000+

Goals for B&B :

Promote financial literacy on campus by teaching different instruments and securities available for saving and investing in capital markets. Spread awareness about various models and methods for analysis of different financial instruments traded. Create a platform for students to learn and practice trading in capital markets for any trading competition.



Managing Director, Quantitative Research
JUNMING (JIM) YANG

Class of 2023

Education:

B.S. Economics, Sun Yat-sen University, China

Accomplishments:

Self-developed an intraday commodity futures trading strategy based on dozens of technical factors and neural network prediction

Implemented and compared different types of deep learning models in stock return predictions and applied Shapley values to measure input features' contributions to the model

Conducted an academic thesis on the impact of Bitcoin futures on its spot volatility and concluded the introduction of futures stabilized spot market in the long run

Goals for B&B:

To provide a platform where students can gather to conduct quant-related research projects of their choosing. To create opportunities for us to learn from each other's experience and skills.



Managing Director, Corporate Finance
TEJASHRI (TJ) PRABHU

Class of 2023

Education:

B.E. Computer Engineering, University of Mumbai, India

Accomplishments:

4+ years experience working with Hedge Funds, Private Equity and Investment Bank clients

Led an efficient team of three analysts responsible for managing four major client accounts. Clients included a \$320 billion AUM Pension Fund, a New York-based Hedge Fund, a Real Estate Investment firm, and a London-based Investment Firm

Trained and mentored four new hires on client deliverables, projects, and work pipelines; helped with professional development, skillset building, and building client relationships

Built valuation models using historical data and forecasting projections for potential/current investments across industries such as pharmaceutical, airports, airline, retail, healthcare, technology, and mining

Designed Bloomberg-driven automated merger template for any acquisition, DCF, DDM, relative valuation, SOTP, credit and fixed income analysis, equity research, and due diligence for investment opportunities

Goals for B&B :

To bring students together through our mutual goals of learning and developing corporate finance models and projects. To create an environment that facilitates personal and professional development.



Vice President
JIAQI (VANESSA) LIANG

Class of 2023

Education:

B.S./B.A. Finance, minor in Mathematics, Ohio State University, United States

Accomplishments:

Conducted academic research to learn about how asset class relationships change across interest rate regimes and their effect on optimal portfolio choice

Led a group of five students to develop a dynamic financial dashboard to display a national non-profit organization's current financial position, historical trends, and key performance indicators in one consolidated document

Mentored 20 junior analysts in a undergraduate student investment club on their equity researches

Goals for B&B:

Supporting a respectful and responsive environment for our diverse community of students to learn and live.



The Bulls and Bear Club held its first virtual information session on Tuesday, November 2. Among the speakers were Professors Roza Galeeva, Kevin Atteson, and Bruno Kamdem, who introduced their spring 2022 courses. These include: FRE-GY 7801 PDE for Financial Engineering (Thur 2:00-4:30 pm), FRE-GY 9743 Mathematics for Machine Learning (Mon 6 -8:30 pm), and FRE-GY 6951 Sustainable Investment (Fri 2:00-4:30 pm).

New Interview Mentorship Program

We are excited to share that FRE is launching a new program at the start of the spring 2022 semester!

In an effort to complement the existing interview preparation resources provided by Career Placement Director Sara DeLusant, we are inaugurating the Interview Mentorship Program, which will provide students with one-on-one access to alumni for mock interviews and technical and industry advice.

The mentorship program will feature select members of the FRE alumni community each semester, with skills ranging from risk, to quantitative finance, to data science, and beyond. Our first five alumni volunteer mentors will be Lucas Bi, Vibhati Joshi, Lin Qian, Igor Tsukerman, and Weiyu Wan, and we're thrilled to have them on board for the Spring 2022 semester!



Alumni News A Stellar Student

Boyan Han, who graduated from FRE last spring, is now following her dreams as a doctoral student at the University of Colorado Boulder's Leeds School of Business. She will spend a projected five years researching cutting-edge academic fields such as corporate finance, asset pricing, and behavioral finance. Boyan says that she loves her challenging and interesting life as a Ph.D. candidate and feels grateful for the solid foundation she received at NYU Tandon.



Faculty News:



Derek Snow Returns

FRE is happy to announce that Assistant Professor of Machine Learning Derek Snow, an associate member at Oxford University's Man Institute of Quantitative Finance and the Alan Turing Institute (the U.K.'s national institute for data science and artificial intelligence) will return to NYU Tandon in spring 2022.

Snow, a former visiting doctoral scholar at the University of Cambridge and NYU Tandon, was educated at the University of Auckland and has worked with some of the world's largest quantitative research firms; his software is downloaded thousands of times a month. In the coming semester, he will be teaching postgraduate and undergraduate courses for machine learning in finance, introducing methods used by the world's largest hedge funds, banks, and other financial institutions and providing the necessary vocabulary and technical expertise to participate in modern financial machine learning projects.

Snow will also present a BQE Lecture on Thursday, May 5th, on "The Future of Quantamental Research."

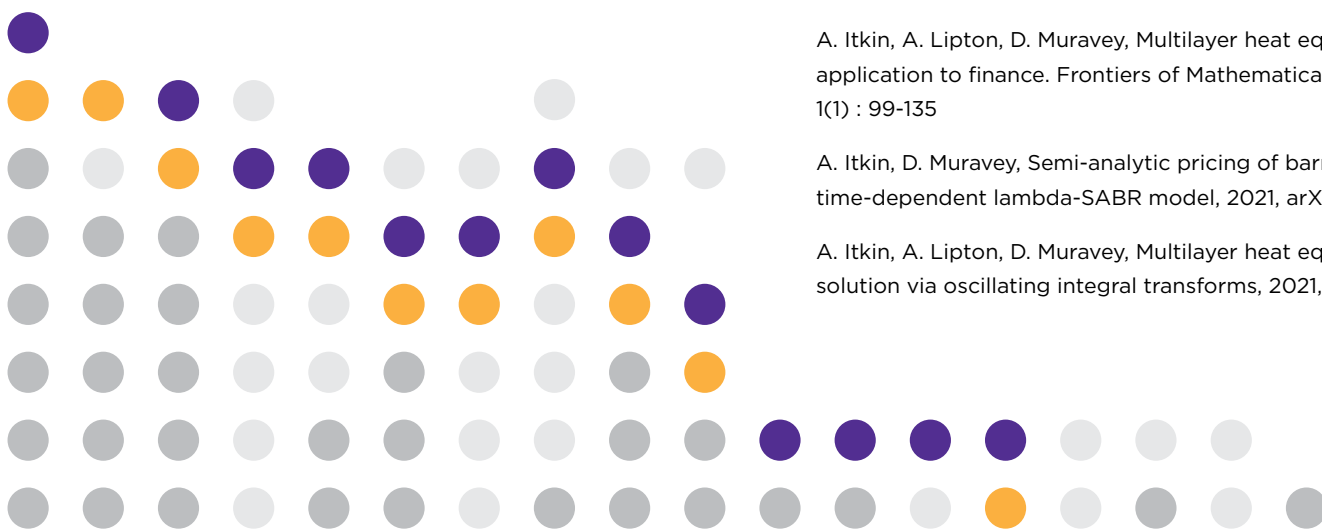


Andrey Itkin's Recent Accomplishments

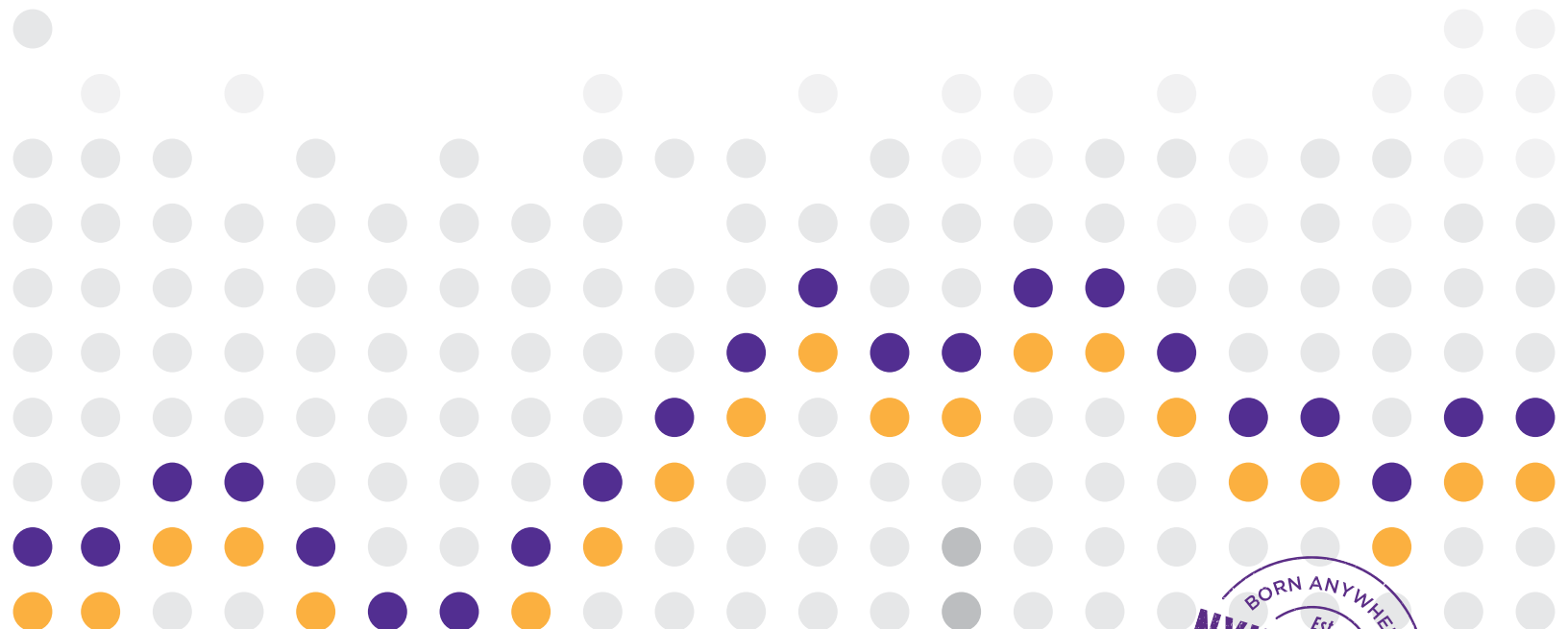
Professor Andrey Itkin has been named the editor-in-chief of a new book series published by World Scientific. Peter Carr sits on the advisory board for the series, Annual Review in Modern Quantitative Finance, which has recently issued a first call for papers.

Andrey, who is also on the board of the Center for Financial Professionals (CeFPro), has co-authored two books recently: Generalized Integral Transforms in Mathematical Finance and Fitting Local Volatility, and a list of his recent co-authored papers includes:

- A. Itkin, F. Soleymani, Four-factor model of Quanto CDS with jumps-at-default and stochastic recovery, *Journal of Computational Science*, 2021, 54, 101434.
- P. Carr, A. Itkin, Semi-closed form solutions for barrier and American options written on a time-dependent Ornstein Uhlenbeck process. *Journal of Derivatives*, 2021, 29(1), 9-26.
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