CHAIR’S WELCOME —

The SIAG FME held its first meeting 10 years ago in Boston, and it has seen steady growth since, with the field evolving considerably over this time. The diversity of the topics now being investigated truly showcases the talent, agility, breadth and depth of knowledge of our members, and the health of the ecology of our research field. While mathematical rigour is still of paramount importance, it is interesting, and motivating, to see that data has now become a driver of model building and analysis in a number of areas.

The newly elected SIAG officers have already begun their roles and have been active behind the scenes. There are a number of exciting developments which I will leave to report on later, but one of the key issues, as discussed during the last SIAG business meeting, is whether to move the FM conferences to odd years (so the next meeting would be in 2019 rather than 2018) – allowing us to stagger with the Bachelier congress. If you would like your say on this, and other related issues, please do respond to the survey which SIAM has circulated to our members.

In the interest of keeping this message short... I wish everyone a bright, prosperous and productive New Year,

by S. JAIMUNGAL

Member News

- Matt Lorig (U of Washington) and Andreea Minca (Cornell U) were the winners of the 2016 SIAG/FME Early Career Prize. Andreea’s citation was “For her fundamental contributions to our understanding of financial instability, quantifying and managing systemic risk, and the control of interbank contagion” while Matt’s read “For making mathematically rigorous the asymptotic theory of derivative pricing and implied volatilities in a wide class of sophisticated financial models.”

- Yuchong Zhang is the winner of the 2016 SIAG/FME Conference Paper Prize based on her research on “Arbitrage in Non-dominated Markets with Frictions”.

- Ruimeng Hu and Tyler Abbot were the finalists of the 2016 SIAG/FME Conference Prize.

- Marko Hans Weber (JP Morgan London), was the Winner of the 2015 Bruti Liberati Prize for his thesis “Models of Dynamic Trading with Price Impact”, completed at Scuola Normale Superiore di Pisa and Dublin City University.

- Damir Filipovic (EPF Lausanne) was the Winner of the 2016 Louis Bachelier Prize.

- New SIFIN (SIAM Journal on Financial Mathematics) Associate Editors: Pauline Barrieu (London School of Economics) Stephane Crepey (Evry University); Jose Figueroa-Lopez (Washington University in St Louis); Masaaki Fukasawa (Osaka University); Julien Guyon (Bloomberg NY); Antoine Jacquier (Imperial College); Tim Leung (Washington University); and Jianfeng Zhang (USC)

Incoming SIAG Officers

Fall 2016 saw the latest round of the biennial Activity Group elections. The newly elected SIAG Officers for the term Jan 2017—Dec 2018 are:

- Sebastian Jaimungal (U Toronto, Chair)
- Tim Leung (U Washington, Vice Chair)
- Francesca Biagini (LMU Munich, Secretary)
- Agostino Capponi (Columbia U, Program Director)
As 2016 draws to a close and I step down from my 2 years as Chair, it is time to for a change of guard at our Activity Group, with new officer terms beginning Jan 1, 2017. On behalf of the activity group, thank you to all who participated in the SIAG/FME Elections, and above all to the candidates who were willing to run and donate their time. The SIAG's ongoing success and health is only possible thanks to all the members who volunteer for the various committees and executive functions.

Last month many of us saw each other during the FM’16 Conference that took place in Austin. A more detailed report about the event can be found on p. 3 of this Newsletter. Beyond the scientific program, the Conference is our occasion to award the two SIAG Prizes. This year Matt Lorig and Andreea Minca were co-winners of the Early Career Prize, while Yuchong Zhang won the Conference Paper Prize (based on the prize session that took place during the Conference). A photo of all the prize winners with yours truly can be seen on this page.

The Conference also features the SIAG Business Meeting. This time, the major discussion points (see below) concerned the organization of future FM conferences, in particular their timing in terms of even/odd years and Fall/Summer months. Based on the discussion and a proposal put together by the SIAG Executive, a survey is currently circulated for our members to vote on their preferences.

As we decide about the location and dates of the next FME conference, the SIAG is putting together another international FM Workshop. The SIAG/FME 2017 Workshop on Mathematical Modelling in Finance will take place next summer (Aug 30–Sep 2) in London, UK. It will be hosted by Imperial College and CFM Institute of Quantitative Finance and co-chaired by Rama Cont and Mike Ludkovski; the other members of the organizing committee are Beatrice Acciaio, Luciano Campi, Mikko Pakkanen and Alex Schied. A website and registration information for the Workshop will be up in early 2017.

Wishing you Happy Holidays and a productive New Year 2017,

by M. LUDKOVSKI

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Highlights of SIAG/FME 2016 Business Meeting on 11/18/2016

- Membership numbers: total members 511 (269 students, 242 non-students) in 2015.
- According to the SIAM Membership Manager, 24 new members joined during the conference. The SIAG Chair emphasized that membership includes free nomination for 2 student memberships.
- Preview for the FM’16 was included in SIAM News Online.
- SIAM book series: first volume by Rene Carmona, who will donate all proceeds to future student's prizes. According to the Book Series Editor, the book series considers research manuscripts and lecture notes, and potentially other formats.
- Charter renewal was successful for two more years.
- Acceptance rate for FM’16 was about 90% for minisymposia, approximately 50% for contributed talks including those that were moved to the poster session.
- SIAG Vice Chair led a discussion concerning location, timing, and costs of the next SIAM FME Conference. The Vice Chair discussed the idea of moving from even to odd years, beginning with the next FME meeting, to avoid holding it in the same year as the Bachelier World Congress. About 60-70% of attendees agreed.
- The SIAG Vice Chair also proposed holding the meeting on a university campus and to hold it in other months than November.
- The SIAG Chair addressed the rising registration fees. Organizing the next FME meeting on campus includes the potential benefits of better classrooms and lower costs, though it might not be cheaper in the end. A participant emphasized that it would be important to have local organizers for any chosen location.
- The SIAG Chair confirmed that the next FME meeting will not be held jointly with the SIAM Annual Meeting 2018 in Portland.

by T. LEUNG
SIAM FM’16 Conference took place during November 17–19, 2016 at the Sheraton Austin Hotel at the Capitol in Austin, TX. Latest registration count was about 280 attendees who came to see more than 200 talks (43 minisymposia, 7 contributed sessions, 8 plenary lectures and 2 mini-tutorials).

Among novel thematic trends, one may underline four sessions on Commodities and Energy Finance (driven in part by the increasingly important role of renewable electricity production from wind and solar installations, a topic that was covered in the mini-tutorial by A. Veraart) and three well-attended minisymposia on Machine Learning in Finance (a new theme, which included everything from analysis of 100+ million mortgages, to textual data mining of financial news headlines). Other active areas continued to be High Frequency/Algorithmic Trading and Market Microstructure that featured in more than a dozen presentations, Model-Free/Robust Finance (at least three minisymposia, plus two plenary lectures) and Systemic Risk/Financial Networks/Risk Measures.

Highlights of the plenary presentations included two talks (though based on entirely different approaches) on financial price bubbles (F. Biagini and J. Scheinkman), a discussion of how to incentivize desired electricity consumption by residential customers using principal-agent models (R. Aid) and an overview of the advantages of the weak formulation (for stochastic control problems, by J. Zhang).

FM’16 also inaugurated a poster session which took place during Thursday evening in conjunction with the welcome reception. The highly successful event saw participants mingle and discuss in front of 16+ posters, combining R&R and science as attested by the photos below.
Job Postings (Aug–Nov 2016)
As advertised on siam-fme@siam.org:

▷ Fixed-term (3y) Lectureship in Mathematical Finance at Oxford U: maths.ox.ac.uk/node/16466
▷ Tenure-track faculty positions at ICTS-TIFR, Bangalore: icts.res.in/faculty-mathematics/
▷ Tenure-track faculty & Lecturer positions at Operations Research and Financial Engineering Dept at Princeton University: jobs.princeton.edu, requisition 1600890 (TT), 1600742 (Lecturer)
▷ Postdoctoral position in actuarial and financial mathematics at The Institute of Probability and Statistics of Leibniz Universität Hannover: sweber[at]stochastik.uni-hannover.de
▷ Chapman Postdoctoral Fellowships at Imperial College London: www3.imperial.ac.uk/mathfin
▷ Acting Assistant Professor in Financial Mathematics at University of Washington Applied Math Dept: mathjobs.org/jobs/jobs/9373
▷ Senior Position in Mathematics of Finance at the Dept of Mathematical Sciences of Carnegie Mellon: University math.cmu.edu/math/positions.php
▷ Lecturer (Tenure-track Assistant Professor) in Machine Learning and Big Data Analytics Department of Mathematics and the Data Science Institute, Imperial College London: www3.imperial.ac.uk/statistics
▷ Professor of Professional Practice in the IEOR Department at Columbia U: engineering.columbia.edu/faculty-job-opportunities
▷ Two tenure-track appointments at University of Toronto (The Dept of Statistical Sciences (DoSS) and the Dept of Computer and Mathematical Sciences (DCMS)): academicjobsonline.org/ajo/jobs/8431
▷ Permanent Lectureship in Financial Mathematics at Dublin City University: www4.dcu.ie/hr/vacancies/current.shtml
▷ Visiting Assistant Professor Positions at the Dept of Statistics & Applied Probability at UC Santa Barbara: mathjobs.org/jobs/jobs/9731
▷ Postdoctoral positions at the Dept of Mathematics, University of Michigan: mathjobs.org/jobs/jobs/9228

Upcoming Conferences

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<tr>
<th>Event</th>
<th>Dates</th>
<th>Location</th>
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<tr>
<td>2nd Eastern Conference on Mathematical Finance</td>
<td>March 10–12, 2017</td>
<td>Florida State U, USA</td>
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<tr>
<td>8th Western Conference in Mathematical Finance</td>
<td>March 24–25, 2017</td>
<td>Seattle, USA</td>
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<td>Byrne Young Researcher Workshop on Mathematical Finance</td>
<td>March 27–31, 2017</td>
<td>Ann Arbor, USA</td>
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<tr>
<td>Thera Stochastics – A Conference in Honor of Ioannis Karatzas</td>
<td>May 31 – June 2, 2017</td>
<td>Fira, Santorini, Greece</td>
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<tr>
<td>Summer school CEMRACS – Numerical Methods for Stochastic Problems</td>
<td>July-August 2017</td>
<td>CIRM, Luminy (Marseille), France</td>
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<tr>
<td>8th General AMaMeF Conference</td>
<td>June 19–23, 2017</td>
<td>Amsterdam, The Netherlands</td>
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<tr>
<td>2017 SIAM Annual Meeting</td>
<td>July 10–14, 2017</td>
<td>Pittsburgh, USA</td>
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SIAM Journal on Financial Mathematics

Recently published articles (Vol 7, 2016):

- Optimal Mortgage Prepayment Under the Cox–Ingersoll–Ross Model by Chris Jones and Xinfu Chen
- Stability and Analytic Expansions of Local Solutions of Systems of Quadratic BSDEs with Applications to a Price Impact Model by Dmitry Kramkov and Sergio Pulido
- Asymptotic Analysis of Forward Performance Processes in Incomplete Markets and Their Ill-Posed HJB Equations by Mykhaylo Shkolnikov, Ronnie Sircar, and Thaleia Zariphopoulou
- Generalized Arbitrage-Free SVI Volatility Surfaces by Gaoyue Guo, Antoine Jacquier, Claude Martini, and Leo Neufcourt
- A Structural Jump Threshold Framework for Credit Risk by Pierre Garreau and Alec Kercheval
- Optimal Consumption and Sale Strategies for a Risk Averse Agent by David Hobson and Yeqi Zhu
- Purchasing Term Life Insurance to Reach a Bequest Goal while Consuming by Erhan Bayraktar, S. David Promislow, and Virginia R. Young
- A Backward Dual Representation for the Quantile Hedging of Bermudan Options by Bruno Bouchard, Géraldine Bouveret, and Jean-François Chassagneux
- The Critical Price of the American Put Near Maturity in the Jump Diffusion Model by Aych Bouselmi and Damien Lamberton
- Variance Swaps on Defaultable Assets and Market Implied Time-Changes by Matthew Lorig, Oriol Lozano-Carbassé, and Rafael Mendoza-Ariaga
- BSDEs, Càdlàg Martingale Problems, and Orthogonalization under Basis Risk by Ismail Laachir and Francesco Russo
- Optimal Liquidation of an Asset under Drift Uncertainty by Erik Ekström and Juozas Vaicenavicius
- Modeling the Variance Risk Premium of Equity Indices: The Role of Dependence and Contagion by Andrea Granelli and Almut E. D. Veraart
- Portfolio Optimization under Local-Stochastic Volatility: Coefficient Taylor Series Approximations and Implied Sharpe Ratio by Matthew Lorig and Ronnie Sircar
- Small-Time Asymptotics for Basket Options—the Bivariate SABR Model and the Hyperbolic Heat Kernel on $\mathbb{H}^3$ by Martin Forde and Hongzhong Zhang
- Conditional Analysis and a Principal-Agent Problem by Julio Backhoff and Ulrich Horst
- Hedging Under an Expected Loss Constraint with Small Transaction Costs by Bruno Bouchard, Ludovic Moreau, and H. Mete Soner
- Density Approach in Modeling Successive Defaults by by Nicole El Karoui, Monique Jeanblanc, and Ying Jiao
- Model Uncertainty in Commodity Markets by Álvaro Cartea, Sebastian Jaimungal, and Zhen Qin
- Optimal Discretization of Hedging Strategies with Directional Views by Jiatu Cai, Masaaki Fukasawa, Mathieu Rosenbaum, and Peter Tankov
- Robust Utility Maximization without Model Compactness by Julio D. Backhoff Veraguas and Joaquín Fontbona
- Robust No Arbitrage of the Second Kind with a Continuum of Assets and Proportional Transaction Costs by Emmanuel Lepinette
- A Robust Markowitz Mean-Variance Portfolio Selection Model with an Intractable Claim by Danlin Hou and Zuo Quan Xu