

TRADING SHOW NEW  
YORK SOLD OUT!  
BOOK YOUR TICKET  
FOR TRADING SHOW  
CHICAGO NOW!

# THE TRADING SHOW

CHICAGO 2017

May 17-18, 2017

Navy Pier, Chicago, IL

TODAY'S MARKETS.  
TOMORROW'S TECHNOLOGY.

QUANT WORLD

AUTOMATED TRADING

BIG DATA IN FINANCE

EXCHANGE TECHNOLOGY

HPC

BLOCKCHAIN

**BOB  
LITTERMAN**

Chairman  
Kepos Capital

**Pricing Carbon- a pragmatic approach to address mankind's greatest risk management problem**

**Bio:** Bob Litterman is the Chairman of the Risk Committee and a founding partner of Kepos Capital, a New York City based systematic global macro firm. Prior to joining Kepos Capital in 2010, Bob enjoyed a 23-year career at Goldman, Sachs & Co., where he served in research, risk management, investments and thought leadership roles. He oversaw the Quantitative Investment Strategies Group in the Asset Management division. While at Goldman, Bob also spent six years as one of three external advisors to Singapore's Government Investment Corporation (GIC). Bob was named a partner of Goldman Sachs in 1994 and became head of the firm-wide risk function; prior to that role, he was co-head of the Fixed Income Research and Model Development Group with Fischer Black. During his tenure at Goldman, Bob researched and published a number of groundbreaking papers in asset allocation and risk management. He is the co-developer of the Black-Litterman Global Asset Allocation Model, a key tool in investment management, and has co-authored books including The Practice of Risk Management and Modern Investment Management: An Equilibrium Approach (Wiley & Co.).

# OPEN LETTER

**Dear Chicago Quant and Trading Community,**

Over the last 10 years, algorithmic trading has permeated through the world's biggest markets and most popular asset classes.

As automated strategies began to usher in a new era for financial markets at the turn of the millennium, Terrapinn become the first conference organizer to recognize the need for a meeting of the minds among the early adopters of the algorithm in a world trading mecca – Chicago.

Since that inaugural event almost 10 years ago, the Trading Show has blossomed into a global gathering featuring 1,000+ attendees representing the foremost trading firms, banks, exchanges and quant funds.

Trading first came to the screen in the 1990s following the introduction of Electronic Communication Networks. Now, the well-manicured and carefully coiffed Gordon Gekkos that became synonymous with trading are being replaced by statistical masterminds wearing headphones and sitting behind their computer screens.

As financial markets travel further into the age of the algorithm, there is no shortage of important developments for all industry stakeholders. Critical policy questions remain about how the CFTC, SEC and other market regulators should most effectively oversee the industry during a continued shift toward thinking machines and smarter, faster algorithms.

Big data has become a critical source of alpha as both volumes of information and the processing power to analyze it continue to increase exponentially. Additional innovations in emerging fields like machine learning and quantum computing continue to demonstrate tremendous potential for automated trading.

In 2017, we are excited to announce the addition of a Blockchain segment to Trading Show's already well-established Automated Trading, HPC, Quant World, Big Data in Finance and Exchange Technology brands.

With an upside worth potentially billions of dollars in eliminated redundancy, latency, and error costs in post-trade processing, it's not surprise that blockchain and distributed ledger technology is generating a level of buzz that we haven't seen since the advent of the information superhighway.

However, critical questions remain. How can regulators make sure they approach blockchain in a way that does not stifle innovation? Do Bitcoin and other underlying digital currency assets utilizing the blockchain hold untapped alpha for trading firms? Will smart contracts become the most exciting and transformative application from blockchain technology?

On May 17 and 18, in addition to the forward-thinking algorithmic trading technology content you've come to expect from the Trading Show, you will also have the opportunity to hear from some of the industry's top blockchain thought leaders. Furthermore, with a host of targeted roundtables, a revamped meeting app and several hours of dedicated networking time, there is no better forum for making new connections.

We both look forward to welcoming you back to Navy Pier for the seventh installation of Trading Show Chicago – the biggest and best yet.

Yours,

**Jesse and Steve**



**JESSE  
COLLIN**

Conference Producer  
T/ +1 646 619 1810  
E/ jesse.collin@terrapinn.com



**STEVEN  
REICHARD**

Project Director  
T/ +1 646 619 1777  
E/ steven.reichard@terrapinn.com

## CONTENTS

2017 Speakers.....	4-5
Keynotes- Day 1.....	6
The Debate .....	7
Trading Infrastructure .....	8
Alternative Data & Alpha Generation 10-11	
Technology, Business Models & Regulation .....	12-13
Big Data Infrastructure & Architecture.....	14
Data Analytics, Risk & Returns .....	15
Smart Contracts & Digital Currencies 16	
Keynotes- Day 2 .....	18
Automation & Real-Time Intelligence .....	1
Pricing, Valuation & Portfolio Construction.....	20
Market Structure, Regulation & GRC .....	21
Programming & Software Development.....	22
Roundtables.....	23
Conference Agenda- Day 1.....	24-29
Conference Agenda- Day 2.....	30-31
Expo & Floorplan .....	32-33
Networking.....	34
10 Reasons to attend.....	35
Pricing.....	36
Sponsors & Exhibitors.....	37





# TRADING SHOW CHICAGO 2017 SPEAKERS

5

## Trading Firms

 <b>BRIAN PETERSON</b> Partner & Algorithmic Trading Lead DV Trading	 <b>SERHAN KOVUK</b> Managing Member LaSalle Trading Group	 <b>MEHMET VANILMAZ</b> Partner Myra Trading	 <b>YAM PELEG</b> Founder Deep Trading	 <b>HOWARD GETSON</b> CEO Capitalogix Trading	 <b>JAY FEUERSTEIN</b> Proprietary Trader Budo Group	 <b>BOBBY CHO</b> Digital Currency Trader DRW Trading Group	 <b>JOHN NETTO</b> Cross-Asset Trader & Author, <i>The Global Macro Edge: Maximizing Return Per Unit-of-Risk</i>	 <b>NANCY STERN</b> EVP & General Counsel Allston Trading
 <b>ANDREW CURTO</b> Head of Research & Strategy G2 Trading	 <b>CARL HOPMAN</b> Director of Quantitative Research Perot Investments	 <b>BRIAN MILLER</b> Founding Partner Optimized Trading	 <b>RICHARD BEGLEY</b> Managing Partner Saffron Trading Group	 <b>BILLY LEE</b> President Providence Trading Group	 <b>ALEX STEFAN POPOVICI</b> Head of Quantitative Trading TLP Trading LLC	 <b>BOB LITTERMAN</b> Chairman Kepos Capital	 <b>GAURAV CHAKRAVORTY</b> Co-Founder aplum	 <b>FREDERIC BOYER</b> Global Head of Quantitative Research – Global Credit Citadel LLC Management
 <b>MARAT MOLYBOGA</b> Chief Risk Officer Efficient Capital Management	 <b>MARK GRANZOW</b> Senior Technology Officer BMO Capital Markets	 <b>SUSAN RAMONAT</b> Chief Risk Officer & Blockchain Program Lead SEI Investments	 <b>BRETT R. SCHLAPFER</b> Managing Member Bullet Hill Capital	 <b>JAMES KOUTOULAS</b> CEO Typhon Capital Management	 <b>GLENN GRAHAM</b> Founder & CIO Golden Point Capital Management	 <b>ANDREW STRASKAN</b> Founder Totem Asset Group	 <b>EUAN SINCLAIR</b> Partner Talton Capital Management	 <b>EFREM HOFFMAN</b> CEO & Founder Running Alpha Investment
 <b>J.J. KINAHAN</b> Chief Market Strategist TD Ameritrade	 <b>DEREK WANG</b> CEO Bell Curve Capital	 <b>JEFF WENIGER</b> Director, Senior Strategist BMO Wealth Management	 <b>DAN GRAMZA</b> President Gramza Capital Management	 <b>SAL ABBASI</b> Co-Founder Coatbridge Capital	 <b>BORIS ALBUL</b> Chief Investment Officer QSF Capital Management	 <b>EZRA GLASTON</b> VC Chicago Ventures	 <b>ATTILIO MEUCCI</b> Chief Risk Officer KKR	 <b>THAPELE TSHOLE</b> CEO Botswana Stock Exchange
 <b>HEATH HUTCHINSON</b> Director Supermicro	 <b>PATRICK SCATENI</b> Vice President CIARA Technologies	 <b>MIKE PERSICO</b> Founder & CEO Anova Technologies	 <b>DAVID TAYLOR</b> CTO Exegy	 <b>LOUIS LOVAS</b> Director OneMarketData	 <b>VIKRAM MAHIDHAR</b> SVP, Artificial Intelligence Solutions RAGE Frameworks	 <b>PETER NABICHT</b> Principal PFN Consulting	 <b>JOHN ROBISON</b> CEO Cape City Command	 <b>GREG ULEPIC</b> Director Avere Systems
 <b>JOHN RAPA</b> President & CEO Tellefsen & Company	 <b>TOMMI VUORENMAA</b> Proprietary Trader & Blockchain Expert	 <b>MATTHEW DIXON</b> Assistant Professor of Finance Illinois Institute of Technology	 <b>ADAM HONORE</b> CEO MarketsTech	 <b>BILL CHEN</b> Head of Statistical Arbitrage Group Susquehanna International Group	 <b>E. PAUL ROWADY</b> Director of Research Alphacution Research Conservatory	 <b>ROBERT WALKER</b> CTO xCelor	 <b>CHUCK MACKIE</b> Senior Advisor Maven Wave Partners	 <b>PAOLO SIRONI</b> Author FinTech Innovation: From Robo-Advisors to Goal Based Investing and Gamification
 <b>EDWARD WEINHAUS</b> Managing Director AdvisoryFX	 <b>STEPHANE TYK</b> Co-Founder McKay Brothers	 <b>ARI STUDNITZER</b> Director, Technology & Architecture CME Group	 <b>DAVID RUTTER</b> Founder & Managing Partner R3CEV	 <b>BRYANT NIELSON</b> Executive Director The Blockchain Academy	 <b>JULIE DIXON</b> President Titan Regulation	 <b>LAURENT DE BARRY</b> Founder ENYX	 <b>HAROON ASKARI</b> Deputy Managing Director Pakistan Stock Exchange	



Join these speakers at **Trading Show Chicago 2017** by booking your ticket today at [www.terrapinn.com/tradingchicago](http://www.terrapinn.com/tradingchicago)



# KEYNOTES DAY 1

6



**John Rapa**  
President & CEO,  
**Tellefsen &  
Company**



**J.J. Kinahan**  
Chief Market  
Strategist,  
**TD Ameritrade**

## Panel: Ex-change of the guard – competition, innovation and regulation in the new world order for exchanges

- Equity markets competition & fragmentation – have endeavors to increase competition, transparency and fairness made the market too crowded? Has this impacted best execution?
- Recent mergers – how will the unions of CBOE/BATS, NASDAQ/ISE & LSE/Deutsche Boerse shape the future of the global exchange sector?
- Consolidation – desirable for global markets?
- Regulation & oversight – market surveillance, supervision and compliance of cross-asset trading
- New markets, products & asset classes – what's on the horizon?



**Bob Litterman**  
Chairman, **Kepos  
Capital**

## Pricing carbon – a pragmatic approach to address mankind's greatest risk management problem

- The difficulties of pricing high-cost, low-probability events – is there a viable economic argument for implementing a costly carbon tax whose benefit may or may not be realized at an unknown point in the future?
- How much should society spend today to insure the future against climate risk?
- Investor and shareholder response to climate risk – are we approaching a tipping point in public opinion and policy?



**Bill Chen**  
Head of Statistical  
Arbitrage Group,  
**Susquehanna  
International Group**

## The Mathematics of Poker – quantitative methodology for the Hold'em table and trading desk

- What lessons can be applied from poker to quantitative trading, and vice versa?
- Online vs. live poker and pit trading vs. screen trading
- Exploitative play vs. optimal play
- Poker finance – portfolio theory, risk of ruin and the Kelly Criterion
- Psychological components of trading and poker
- Will quantitative skills and knowledge ultimately become a necessity for poker players?



Make sure you don't miss anything – **Register now** at [www.terrapinn.com/TradingChicago](http://www.terrapinn.com/TradingChicago)

E  
F  
R  
E  
M  
M  
A  
N

H  
O  
F  
F  
M  
A  
N

K  
O  
U  
T  
O  
U  
L  
A  
S

J  
A  
M  
E  
S  
K  
O  
U  
T  
O  
U  
L  
A  
S

VS

MAY 17, 2017

CHICAGO, IL

THE TRADING SHOW

CHICAGO 2017

## Trading the Trump factor – a new source of portfolio alpha?

- Measuring the relationship between Trump's Twitter sentiment, the overall market mood, and the short and longer-range price and volatility impact on companies, currencies, and nations
- Will it be a viable strategy to develop algorithms designed to take advantage of short-term price discrepancies caused by a presidential tweet?
- Presidential tweet risk – what unintended consequences might emerge as a result of Trump's penchant for Twitter?

**Efrem Hoffman**, CEO & Founder, **Running Alpha Investment**

**James Koutoulas**, CEO, **Typhon Capital Management**

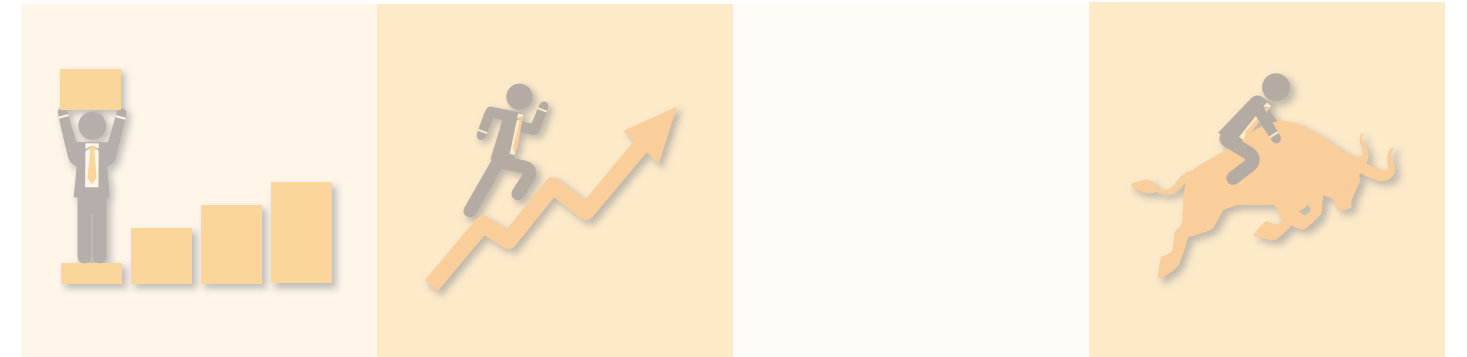
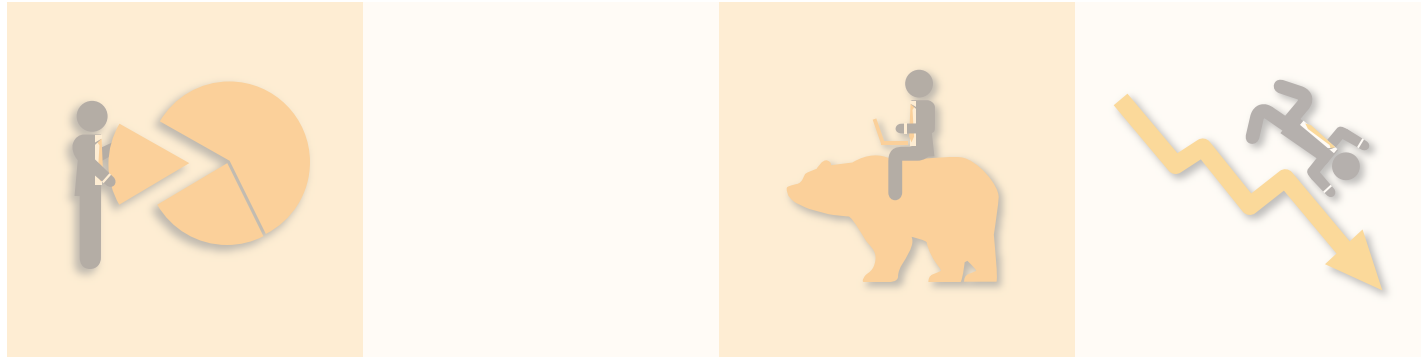
**Julie Dixon**, President, **Titan Regulation**

**Jeff Weniger**, Director, Senior Strategist, **BMO Wealth Management**

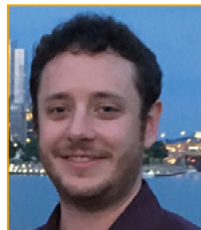
# TRADING INFRASTRUCTURE

With high-performance processors, complex algorithms and lightning fast execution becoming key competitive differentiators for trading firms, technology has always been in the DNA of Trading Show Chicago. In 2017 and beyond, top firms will have to be both smart and fast to outwit the competition. Take advantage of the opportunity to hear how senior technology leaders from **Myra Trading**, **BMO Capital Markets** and **G2 Trading** are wiring their firms for success.

9



**Mehmet Yanilmaz**  
Partner, **Myra Trading**



**Richard Begley**,  
Managing Partner,  
**Saffron Trading Group**



**Derek Wang**  
CEO, **Bell Curve Capital**



**Andrew Curto**  
Head of Research  
& Strategy,  
**G2 Trading**



**Robert Walker**  
CTO, **xCelor**



**Laurent de Barry**  
Founder, **ENYX**

## Panel: 'Best ex' standards – what is the buy-side looking for from brokers?

- **Buy-side control** – what is driving buy-side firms to seek more power in the execution process? How would more buy-side control affect clearing costs?
- **Cross-asset market microstructure** – how are Reg NMS and MiFID changing firms' approach to sourcing liquidity? Has regulation ultimately improved or hindered execution?
- **Execution strategy** – how are firms deploying algorithms in both dark and lit venues to locate the best price with minimal price leakage?
- **Broker innovation** – how can savvy brokers evolve strategies and differentiate algorithms to meet buy-side demands?

## Panel: FPGAs, acceleration technologies, GPUs and high-performance hardware

- **Budget balancing** – speed vs. capacity and latency vs. performance
- **Parlaying speed into intelligence** – how are new classes of server technology enabling deterministic performance in addition to cutting latency?
- **Measuring the value of FPGA enhanced functionality** – how can they optimize trade workflow and be applied beyond the traditional domains of market data acquisition and distribution?
- **Key differentiators for high-performance servers** – what features can provide latency-sensitive trading firms with superior performance in connectivity, data access and computation? in both dark and lit venues to locate the best price with minimal price leakage?



**John Robison**  
CEO, **Cape City Command**

## Panel: Ultra-low latency connectivity – how is the game of speed changing in today's automated trading environment?

- **Cloud & carrier neutral co-location** – selecting the right connectivity for your firm
- **Fiber vs. microwave vs. millimeter wavelength** – comparing and contrasting new developments in network connectivity
- **Benefits beyond latency** – how can you parlay low latency into high trading intelligence?
- **Network monitoring** – solutions, methods and technologies for identifying trends, detecting outliers and correcting excessive latency and jitter in real time
- How can you accurately measure latency and jitter in a microsecond-sensitive ultra-low latency networking environment?
- **Next-generation data centers** – open infrastructure, software-defined technologies and automation
- **Low-earth orbit (LEO) satellites** – a revolution in ultra-low latency connectivity?



**Stéphane Tyč**  
Co-Founder,  
**McKay Brothers**

## Microwave lines – a review of the latest developments

- Improving regulation through transparency and complexity reduction
- More routes? What to expect
- Methods of ensuring reliability



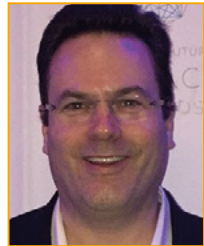
Make sure you don't miss anything – **bring your team by taking advantage of our group discounts** on [www.terrapinn.com/TradingChicago](http://www.terrapinn.com/TradingChicago)

# ALTERNATIVE DATA & ALPHA GENERATION

The big data revolution has permeated every vertical and sub-vertical across the business world, including the hyper-competitive capital markets arena. Now, with almost every aspect of human life becoming digitized, quants and traders are turning to the most unconventional of data sources to mine for alpha. Learn how information from unlikely places – such as nanosatellites, drone imagery, Internet of Things and GPS – could be the most critical ingredients for generating alpha in tomorrow's markets.



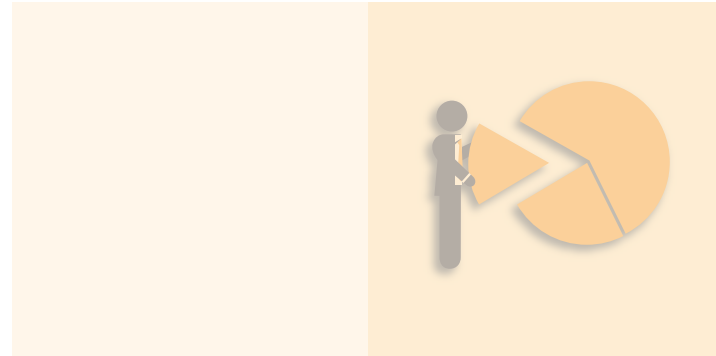
**E. Paul Rowady**  
Director of  
Research,  
**Alphacution  
Research  
Conservatory**



**Howard Getson**  
CEO, **Capitalogix  
Trading**



**Jay Feuerstein**  
Proprietary,  
**Budo Group**



## Panel: Next-generation data vendors – what tools, technologies and applications will be most critical for enabling alpha discovery?

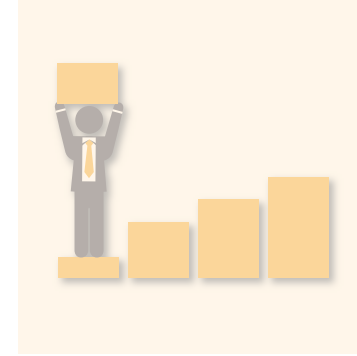
- Is it sustainable to sell a packaged alpha product? If so, how are vendors offering packaged alpha products accounting for crowding and the resultant decay of the value with time?
- Will the ability to manage emerging unstructured data sources (i.e. nanosatellites, drone imagery, Internet of Things) ultimately become the most critical ingredient for alpha discovery?
- How are vendors helping firms de-silo and integrate enterprise data into a unified environment?
- Underlying infrastructure – how will firms maintain the necessary computational resources to uncover alpha-generating signals from expanding and diversifying data sources? Will in-memory applications become a critical component in all data management and analytics platforms?



**Brett R. Schlapfer**  
Managing Member,  
**Bullet Hill Capital**

## Using sentiment analysis to inform trading decisions – a viable long-term strategy?

- Reliable or liability? Given the inclusive nature of social media, how reliable are datasets in predicting future asset prices?
- Positive vs. negative sentiment – do they have different effects on the intensity and duration of price movements?
- Blogs vs. news vs. social media – do different sources of sentiment impact price movements differently?



**Matthew Dixon**  
Assistant Professor  
of Finance, **Illinois  
Institute of Technology**

## How and when machine learning methods can be applied to automated trade decisions

- How to extract relevant features from level II exchange data and apply machine learning methods to predict near-term directional price movements using scikit-learn and Pandas
- How to create and perform simple backtests of trading strategies
- How to navigate the engineering challenges of creating production grade machine learning-based strategies



**Gurav Chakravorty**  
Co-Founder, **qplum**

## Implementing deep learning algorithms to forecast market trends

- What are deep neural networks (DNNs) and how has their predictive power been harnessed in the speech transcription and image recognition communities?
- How has the computational complexity of DNNs hindered its adoption to predicting behavior in the financial markets?
- How can the algorithm be effectively deployed on general purpose high-performance infrastructure?

## GPS & location-tracking data – bleeding-edge applications for predicting market behavior

- What companies should trading firms and quant funds look out for as sources of “edge-worthy” real-time tracking data in the era of digitization?
- How can real-time information about commercial road traffic be used to provide insights into economic trends?
- Further applications of real-time GPS –crude oil, crop yields, manufacturing, construction

## Apache Spark – core statistics and machine learning models

- What are the key tenets of Spark’s distributed computing framework?
- Building statistical and machine learning applications using Apache Spark
- Applying and scaling algorithms to solve enterprise big data challenges





# TECHNOLOGY, BUSINESS MODELS & REGULATION

13

The exchange sector continues to change dramatically amidst sweeping consolidation and the unwavering pursuit of scale and variety in execution models. Most notably, CBOE's historic \$3.2 billion acquisition of Bats last September, propelling the world's oldest options exchange into a new rival for the world's biggest market operators. Meanwhile, disruptive innovations like blockchain are showing real potential for transforming execution, settlement and other processes in the trade lifecycle. Furthermore, the regulatory environment created by MiFID and Reg NMS continues to foster the inception of new trading venues and alternative trading systems. Join world exchange leaders for a deep dive into the technological, economic and regulatory forces blazing the path forward for market operators.



**Mehmet Yanilmaz**  
Partner,  
Myra Trading

## Accelerating blockchain's performance – current limitations and promising directions

- Accelerating distributed synchronizations and mining operations across blockchain applications
- Effective splitting of functions and computational loads between hardware substrates and software
- Vertical automata partitioning across blockchains' implementation layers for scalable throughput
- Leveraging proven, massively-parallel, concurrent computing technologies for blockchain performance



**Bryant Nielson**  
Executive Director,  
**The Blockchain Academy**



**Susan Ramonat**  
Chief Risk Officer &  
Blockchain Program  
Lead, **SEI Investments**

## The dark side of decentralization – what are the hidden risks in a blockchain revolution?

- **Consumer protection** – combating fraud, theft, counterparty default and other risks in the absence of a central authority
- **Volatility exposure** – safeguarding against extreme price fluctuations without a central bank and/or other means of economic stabilization
- **Enforcement** – how can regulatory bodies enforce rules and standards in a decentralized environment?



**Chuck Mackie**  
Senior Advisor,  
**Maven Wave Partners**



**Ari Studnitzer**,  
Director, **Technology & Architecture, CME Group**

## Panel: Engine for (ex)change – how will technology re-invent the role of market operators in the age of the algorithm?

- **Changing business models** – have exchanges morphed into technology vendors?
- **Vision for blockchain** – an end-to-end solution streamlining trading, clearing and settlement?
- **Cloud factor** – will venues ultimately move market operations to the cloud?
- **Security & compliance** – innovation and initiatives for bolstering security in an increasingly unsecure world
- **Artificial intelligence** – what role will smart machines play in tomorrow's exchanges?



**Thapelo Tshole**  
CEO, **Botswana Stock Exchange**

## David vs. Goliath – how are savvy smaller exchanges adapting in the consolidation era?

- How are forward-thinking trading venues using their technology and infrastructure dollars to drive efficiency and performance?
- Crowdfunding and other unconventional, disruptive business models
- Risks and rewards of pursuing partnerships with larger exchanges

## Blockchain regulatory rigmarole – is the current environment facilitating innovation?

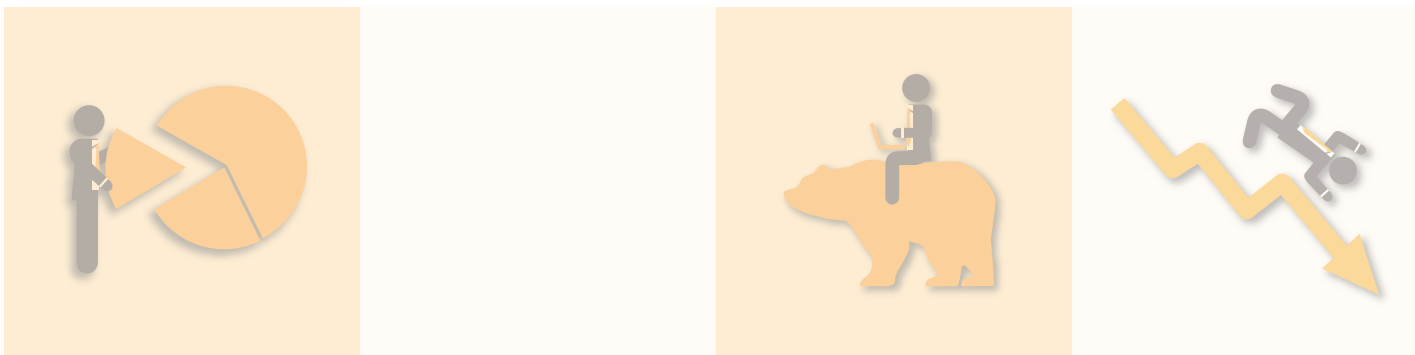
- **Global initiatives** – do we need more international collaboration to develop appropriate policies?
- **Stakeholder reaction** – are key market players, regulators and policymakers encouraging the development and integration of distributed ledger technology?
- **Regulating the unregulatable** – how can regulators make sure they approach blockchain in a way that does not stifle innovation?



**David Rutter**  
Founder &  
Managing Partner,  
**R3CEV**

## Blockchain – not a game, but a game change

- **Nuts & bolts** – why blockchain is nothing more than a new form of database technology
- **Albatross of legacy infrastructure** – why obsolete infrastructure costs financial institutions billions from operational inefficiencies, failures and cyber attacks
- **Further applications for distributed ledger** – optimizing back-office processing, digitizing physical transfer of assets, increasing transparency in payments, reducing the risk of fraud and providing digital identities to the unbanked



## How is innovation driving change to the capital markets intermediary?

- Regulatory impact – how are new rules impacting stress testing, trading, clearing, settlement and other business functions?
- New blood – assessing the proliferation of dark pools and multi-asset trading venues
- The blockchain effect – how will the maturation of distributed ledger technology impact financial intermediaries?
- Could it actually render obsolete the need for a third-party "trust provider" for transactions?
- Short & long-term outlooks – how will the intermediary add value in 2017, and in the more distant future?



Make sure you don't miss anything – **bring your team by taking advantage of our group discounts** on [www.terrapinn.com/TradingChicago](http://www.terrapinn.com/TradingChicago)

# BIG DATA INFRASTRUCTURE & ARCHITECTURE

14

Having the right tools in your arsenal to store, analyze and process massive quantities of financial information is crucial in today's data-driven trading landscape. The maturation of cloud computing, OpenStack, Hadoop and other related big data software are no longer commodities, but essential components of the technology stack. Take advantage of this exclusive opportunity to hear from leading data scientists, engineers and financial IT leaders about how to build trading infrastructure for optimal performance and efficiency in the big data era.



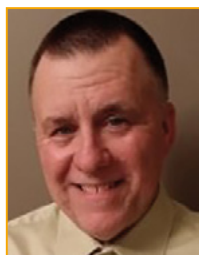
**Louis Lovas**  
Director,  
**OneMarketData**



**Peter Nabicht**  
Principal,  
**PFN Consulting**

## Panel: Enterprise data management – how are you applying innovative technologies to streamline and modernize the information lifecycle?

- **Warehousing & integration** – best practices for building an enterprise data warehouse and unifying data management across different IT teams and departments
- **Standardization** – what are the benefits of a common industry language, or financial Rosetta Stone, on operational efficiency and regulatory reporting?
- **Storage** – deploying cloud servers and software-defined data centers to maximize storage efficiency and scalability; maintaining storage requirements to accommodate new data sources and exponentially growing data volumes
- **Governance** – how to design an effective data governance strategy for managing regulatory risk and meeting compliance demands
- **Roadblocks** – data quality issues; integrating big data technologies with legacy IT infrastructure



**Mark Granzow**  
Senior Technology  
Officer, **BMO**  
**Capital Markets**



**Patrick Scateni**  
Vice President,  
**CIARA**



**Heath Hutchinson**  
Director,  
**Supermicro**



**Adam Honore**  
CEO, **MarketsTech**

## Panel: Re-thinking IT infrastructure for latency-sensitive trading – compute, storage and networking

- **Compute infrastructure** – batch vs. stream processing, Apache Storm, Map4
- **Storage infrastructure** – cluster computing, in-memory computing
- **NoSQL/NewSQL databases** – Hadoop, Spark, MongoDB
- **Process externalization & the cloudification of trading** – how should your IT department respond to the “everything as-a-service” (XaaS) revolution?



# DATA ANALYTICS, RISK & RETURNS

15

Harvesting intelligence from data—and converting that intelligence into productive financial decisions—is the key driver for firms today. From unsupervised deep learning to deploying Hadoop across the enterprise, Trading Show Chicago will provide an unparalleled opportunity to collaborate with top data scientists, discover new analytics tools and ultimately learn how to extract deeper insights in real time from your data



**Attilio Meucci**  
Chief Risk Officer,  
KKR

## FinTech Education - leveraging technology to understand finance, analytics, and data in theory and practice

- **Say it** (Ying & Yang) – hardcore math made easy
- **See it** (Visualization) – voiced-over simulations as opposed to lecture recording
- **Do it** (Interactive computing) – live data, cloud-based computing, hosted editing for on-the-fly replication
- **Share it** (Community) – slide neutralization, feedback looping
- **Frame it** (Cross-linking) – multi-media interconnectivity, spoke-to-hub architecture



**Euan Sinclair**  
Partner, **Talton Capital Management**



**Brian Miller**  
Head of Quantitative Research & Strategy, **Optimized Trading**



**Carl Hopman**  
Director of Quantitative Research, **Perot Investments**



**Boris Albul**  
Chief Investment Officer, **QSF Capital Management**

## Panel: Risky business – how are top quant funds managing, modeling and measuring risk?

- How are portfolio managers accurately assessing risk as modern markets become increasingly complex and volatile?
- How can you leverage next-generation data management and analytics tools for providing an integrated view of portfolio risk exposure across time horizons and asset classes?
- Risk modelling – how can new validation tools be applied to ensure accuracy?
- Predictive analytics – how are you using predictive tools to measure risk?

## How can cognitive computing provide a competitive edge in financial data analysis?

- Can cognitive computing can be applied to improve trading market analytics and market risk evaluation?
- Applying cognitive computing technology to explore, understand and apply insights from unstructured data to a range of financial market scenarios
- Using cognitive computing to identify signals from trading breaches, disorderly trading and market abuse

# SMART CONTRACTS & DIGITAL CURRENCIES

16

Much is made about blockchain technology itself, but how it is applied to streamline and optimize processes will ultimately decide whether it lives up to the hype. Cryptocurrencies and smart contracts were among the first applications built on the underlying distributed ledger technology, but will they ultimately be the most transformative? Join blockchain, cryptocurrency and capital markets thought leaders for in-depth discourse on the most hyped innovation since the Internet.

## Algorithmic trading of digital currencies – untapped alpha for prop firms?

- **Prevalence** – how much current volume is created by automated strategies?
- **Developing a trading strategy** – what works best?
- **Digital currency markets vs. traditional markets** – liquidity, execution, trading fees



**Bobby Cho**  
Digital Currency Trader, **DRW Trading Group**



**Edward Weinhaus**  
Managing Director, **AdvisoryFX**



**Tommi Vuorenmaa**  
Proprietary Trader & Blockchain Expert

## Beyond Bitcoin – illustrating the landscape for emerging and established digital currencies

- **Market size, growth, competition & composition** – with the cryptocurrency market exceeding \$10 billion in 2016, what are the growth expectations in 2017 and 2018?
- **Comparing & contrasting cryptocurrencies** – mining requirements, exchange rates, market cap, payment applications, anonymity and other special features
- **Bitcoin alternatives** – will alternative currencies like Litecoin and Ripple challenge Bitcoin's dominance?

## Smart contracts – what's the deal?

- **Establishing a definition** – can "smart contracts" simply be defined as a piece of software stored, verified and executed on the blockchain?
- **Use cases in finance** – is clearing and settlement the most promising domain for smart contract automation? What about digital wallets? Loans? Escrow?
- **Adoption challenges** – legal/regulatory considerations, integration into business ecosystem, lack of standards/best practices
- When should companies use blockchain-enabled smart contracts instead of existing technology?



Make sure you don't miss anything – **Register now** at [www.terrapinn.com/TradingChicago](http://www.terrapinn.com/TradingChicago)



Make sure you don't miss anything – **Register now** at [www.terrapinn.com/TradingChicago](http://www.terrapinn.com/TradingChicago)



"I FIND THIS TO BE ONE OF THE BEST NETWORKING EVENTS, AS YOU HAVE ROUNDTABLES AND SPEED NETWORKING WHICH IS DESIGNED TO GET PEOPLE TOGETHER. PLUS YOU HAVE A QUALITY GROUP OF SPEAKERS AND EXHIBITORS WHICH HELP DRAW A GOOD CROWD."

2016 TRADING SHOW CHICAGO DELEGATE



## KEYNOTES DAY 2

18



**Brian Peterson**  
Partner & Head of  
Algorithmic Trading,  
DV Trading

### High-performance computing and algorithmic trading – how will new breakthroughs in advanced computer science change the game

- How can we define the use of HPC using common patterns drawn from computer science and finance?
- How can we use these patterns to improve the applicability of existing research, facilitate the genesis of new research and increase system capability/throughput?
- Examining HPC use cases, bottlenecks and engineering solutions across market data, pricing, market surveillance, portfolio optimization, strategy backtesting, pricing and risk



**Efreem Hoffman**  
CEO & Founder,  
Running Alpha  
Investment



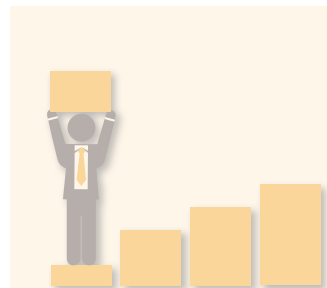
**James Koutoulas**  
CEO, Typhon Capital  
Management



**Jeff Weniger**  
Director, Senior  
Strategist, BMO Wealth  
Management

### Trading the Trump factor – a new source of portfolio alpha?

- Measuring the relationship between Trump's Twitter sentiment, the overall market mood, and the short and longer-range price and volatility impact on companies, currencies, and nations
- Will it be a viable strategy to develop algorithms designed to take advantage of short-term price discrepancies caused by a presidential tweet?
- Presidential tweet risk – what unintended consequences might emerge as a result of Trump's penchant for Twitter?



Make sure you don't miss anything – **Register now** at [www.terrapinn.com/TradingChicago](http://www.terrapinn.com/TradingChicago)



# AUTOMATION & REAL-TIME INTELLIGENCE

Automated trading, by its namesake, was born by exploiting the potential of automation technology. Coming hand in hand with the continued automation of trading processes has been exponential growth in data volumes and varieties. Glean insights from stories of automation success and uncover strategies for extracting value from real-time intelligence across the front, back and middle offices from traders, engineers and other financial technologists.



**John Netto**  
Cross-Asset Trader  
& Author, ***The Global Macro Edge: Maximizing Return Per Unit-of-Risk***

## "Automating the macro narrative" – how all types of traders and investors can approach automating operations, analytics, and execution

- **Analytics** – case study about how John automated his market analytics through both off-the-shelf products and custom built applications
- **Operations** – how John reconciles brokerage statements, expenses, and P&L attribution across multiple strategies and multiple accounts
- **Execution** – the process to automate some or all of your execution through off-the-shelf software applications or building your own proprietary execution software
- **Seven Steps** to build a proprietary software application



**Mike Persico**  
Founder & CEO,  
**Anova Technologies**

## The value of microsecond – an analysis of the information flows within the New Jersey equity triangle (BATS, NASDAQ, NYSE) (topic to be updated)

- Tick data analysis of the trade-trade response between exchanges
- What exchange drives the majority of price formation within the equity triangle?
- The value of a microsecond on a per route basis, calculated both for latency and highest availability



**Daniel Gramza**  
President, **Gramza Capital Management**

## Five serious option trading mistakes and their solutions

- How to create and manage specific directional option trading strategies for both short term and long term timeframes
- Establishing specific trading guidelines, profit and risk management objectives to enable consistent reactions to the market
- A proprietary approach to Behavioral Japanese Candle trading techniques

19

# PRICING, VALUATION & PORTFOLIO CONSTRUCTION

Trading Show Chicago has always had a strong following in quantitative finance. This will continue in 2017 as acclaimed Chief Risk Officers and Heads of Quant will unveil new research in portfolio construction, asset allocation and the pricing and valuation of derivatives. Don't miss your chance to hear from Chief Risk Officers and Head Quants from firms like **Efficient Capital Management**, **Citadel LLC** and **UBS**.



**Marat Molyboga**  
Chief Risk Officer,  
**Efficient Capital**

## Trend, carry and hedging premium

- Why carry is a significant component of trend
- Conditioning trend signals on basis improves performance
- Trend following correlation to hedging premium vs. carry correlation to hedging premium



**Euan Sinclair**  
Partner, **Talton Capital Management**

## Global macro indicators for predicting broad market volatility

- **Two rules for forecasting volatility** – tomorrow's volatility is the same as today's and long-term volatility will be what it has always been
- **Fed-induced schizophrenia** – the impact of central bank policy on market fits and tantrums
- **Geopolitical events** – how will the incoming Trump administration impact the market's fear gauge?

## How do rising rates impact low-risk investment portfolios?

- Most low risk portfolios whether built as minimum variance or using other techniques have a duration exposure – they are positively exposed to falling rates
- How does this exposure affect the performance of a low-risk portfolio if rates start to rise?
- Does valuation have any effect on this?

20



Make sure you don't miss anything – **Register now** at [www.terrapinn.com/TradingChicago](http://www.terrapinn.com/TradingChicago)



Make sure you don't miss anything – **Register now** at [www.terrapinn.com/TradingChicago](http://www.terrapinn.com/TradingChicago)

# MARKET STRUCTURE, REGULATION & GRC

21

Technological developments have hastened the speed of change across capital markets – and regulators are working extra time to keep up. Join regulators, trading firms and exchanges for a discussion into current and future oversight of financial markets.



Serhan Kovuk  
Managing Member,  
LaSalle Trading Group

## Market structure and regulation in the futures and options market

- How will the proliferation of new trading venues affect your trading strategy?
- How will current and future regulation, i.e. REG-NMS, Order Protection Rule, Access Rule, Sub-Penny Rule, address predatory automated, high-frequency trading strategies?
- How are the nuances of modern market microstructure affecting volatility and liquidity across asset classes?
- The latency barrier and its impact on achieving best execution – have the markets sacrificed fairness for speed?



Julie Dixon  
President,  
Titan Regulation



Nancy Stern  
EVP & General Counsel,  
Allston Trading  
Regulation

## Regulation AT – how would the CFTC's landmark proposal affect proprietary traders, market fairness and systemic risk?

- How would the CFTC and other government agencies use proprietary source code obtained from automated traders to reduce the likelihood of "flash crashes" and other harmful market disruptions?
- Do the potential benefits justify significantly lowering the bar for government access to intellectual property?
- How will regulators protect source code from hackers and cyber-breaches?
- How would market participants, particularly smaller ones, handle the higher compliance costs created by Reg AT's increased risk controls, reporting demands and recordkeeping requirements?
- How should exchanges and trading venues be involved in the oversight process?

# PROGRAMMING & SOFTWARE DEVELOPMENT

22

Today's quants are proficient in a number of different programming languages. Between C++, MATLAB, Julia, R, Java and Python, there is a lot of debate about which language performs best for developing applications in quantitative finance. You'll have the opportunity to get a crash course on programming from leading quantitative developers from firms like **Citadel LLC** and **Deep Trading**.



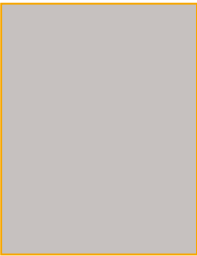
Yam Peleg  
Founder,  
Deep Trading

## Using Python for financial data analysis

- Python basics – development environment and scientific libraries
- Data management – connecting your Python-based trading strategy to the big data ecosystem
- Research process – the nuts and bolts of building a quantitative trading strategy using Python



Sal Abbasii  
Co-Founder,  
Coatbridge Capital



Alex Stefan Popovici  
Head of Quantitative  
Trading, TLP Trading  
LLC



Frederic Boyer  
Global Head of Quantitative  
Research – Global Credit,  
Citadel LLC

## Case study: How to build a quant model – real world answers to real world problems

- **Strategy development** – how to identify and implement a trading strategy
- **Backtesting pitfalls** – what are the most common mistakes made by quants when backtesting trading strategies? Is backtesting best evaluated as a method for rejecting bad strategies in lieu of finding good ones?
- **Execution system** – linking to a brokerage, automating the trading and lowering transaction costs
- **Risk Management** – asset allocation, technology risk and brokerage risk



# ROUNDTABLES

23

The interactive roundtable sessions offer you the chance to focus your time at the Trading Show Chicago. With topics spanning the disruptive impact of robo-advisors to OpenStack for the enterprise, the agenda offers something for all stakeholders from the front office to the back office, and everywhere in between.

1:

Robo-advisors – threat or opportunity to traditional asset management?

2:

Java – programming for quantitative finance

3:

Docker and containerization

4:

Bayesian networks – applications for identifying relationships between variables

5:

Permission vs. permissionless blockchain

6:

Anomaly detection

6:

Market surveillance

8:

Compute vs. storage in your infrastructure stack

9:

Grid vs. cluster computing

10:

Database models – comparing and contrasting NoSQL, SQL and NewSQL

11:

Using Cassandra, MongoDB and others for tick data storage

12:

Supervised vs. unsupervised deep learning

13:

OpenStack



Places on the roundtables are limited! Book your ticket today to ensure you get your table of choice at [www.terrapinn.com/TradingChicago](http://www.terrapinn.com/TradingChicago)

8:00	Breakfast & Registration		
8:50	Chairperson's Opening Remarks		
9:00	<p><b>Panel: <i>Ex-change of the guard – competition, innovation and regulation in the new world order for exchanges</i></b></p> <ul style="list-style-type: none"><li>Equity markets competition &amp; fragmentation – have endeavors to increase competition, transparency and fairness made the market too crowded? Has this impacted best execution?</li><li>Recent mergers – how will the unions of CBOE/BATS, NASDAQ/ISE &amp; LSE/Deutsche Boerse shape the future of the global exchange sector?</li><li>Consolidation – desirable for global markets?</li><li>Regulation &amp; oversight – market surveillance, supervision and compliance of cross-asset trading</li><li>New markets, products &amp; asset classes – what's on the horizon?</li></ul> <p><b>Moderator: John Rapa</b>, President &amp; CEO, <b>Tellefsen &amp; Company</b> <b>J.J. Kinahan</b>, Chief Market Strategist, <b>TD Ameritrade</b></p>		
9:40	<p><b>Pricing carbon – a pragmatic approach to address mankind's greatest risk management problem</b></p> <ul style="list-style-type: none"><li>The difficulties of pricing high-cost, low-probability events – is there a viable economic argument for implementing a costly carbon tax whose benefit may or may not be realized at an unknown point in the future?</li><li>How much should society spend today to insure the future against climate risk?</li><li>Investor and shareholder response to climate risk – are we approaching a tipping point in public opinion and policy?</li></ul> <p><b>Bob Litterman</b>, Chairman, <b>Kepos Capital</b></p>		
10:00	<p><b>The Mathematics of Poker – quantitative methodology for the Hold'em table and trading desk</b></p> <ul style="list-style-type: none"><li>What lessons can be applied from poker to quantitative trading, and vice versa?</li><li>Online vs. live poker and pit trading vs. screen trading</li><li>Exploitative play vs. optimal play</li><li>Poker finance – portfolio theory, risk of ruin and the Kelly Criterion</li><li>Psychological components of trading and poker</li><li>Will quantitative skills and knowledge ultimately become a necessity for poker players?</li></ul> <p><b>Bill Chen</b>, Professional Poker Player &amp; Head of Statistical Arbitrage Group, <b>Susquehanna International Group</b></p>		
10:30	SPEED Networking & Morning Break		
	<b>AUTOMATED TRADING</b>	<b>QUANT WORLD</b>	<b>EXCHANGE TECHNOLOGY</b>
	<b>HPC</b>	<b>BIG DATA IN FINANCE</b>	<b>BLOCKCHAIN</b>
	<b>Trading Infrastructure</b>	<b>Alternative Data &amp; Alpha Generation</b>	<b>Technology, Business Models &amp; Regulation</b>
11:20	<p><b>Panel: 'Best ex' standards – what is the buy-side looking for from brokers?</b></p> <ul style="list-style-type: none"><li><b>Buy-side control</b> – what is driving buy-side firms to seek more power in the execution process? How would more buy-side control affect clearing costs?</li><li><b>Cross-asset market microstructure</b> – how are Reg NMS and MiFID changing firms' approach to sourcing liquidity? Has regulation ultimately improved or hindered execution?</li></ul>	<p><b>Panel: Next-generation data vendors – what tools, technologies and applications will be most critical for enabling alpha discovery?</b></p> <ul style="list-style-type: none"><li>Is it sustainable to sell a packaged alpha product? If so, how are vendors offering packaged alpha products accounting for crowding and the resultant decay of the value with time?</li></ul>	<p><b>Panel: Engine for (ex)change – how will technology re-invent the role of market operators in the age of the algorithm?</b></p> <ul style="list-style-type: none"><li><b>Changing business models</b> – have exchanges morphed into technology vendors?</li><li><b>Vision for blockchain</b> – an end-to-end solution streamlining trading, clearing and settlement?</li><li><b>Cloud factor</b> – will venues ultimately move market operations to the cloud?</li></ul>

<ul style="list-style-type: none"> <li>• <b>Execution strategy</b> – how are firms deploying algorithms in both dark and lit venues to locate the best price with minimal price leakage?</li> <li>• <b>Broker innovation</b> – how can savvy brokers evolve strategies and differentiate algorithms to meet buy-side demands?</li> </ul> <p><b>Mehmet Yanilmaz</b>, Partner, <b>Myra Trading</b></p> <p><b>Richard Begley</b>, Managing Partner, <b>Saffron Trading Group</b></p> <p><b>Derek Wang</b>, CEO, <b>Bell Curve Capital</b></p>	<ul style="list-style-type: none"> <li>• Will the ability to manage emerging unstructured data sources (i.e. nanosatellites, drone imagery, Internet of Things) ultimately become the most critical ingredient for alpha discovery?</li> <li>• How are vendors helping firms de-silo and integrate enterprise data into a unified environment?</li> <li>• Underlying infrastructure – how will firms maintain the necessary computational resources to uncover alpha-generating signals from expanding and diversifying data sources? Will in-memory applications become a critical component in all data management and analytics platforms?</li> </ul> <p><b>Moderator: E. Paul Rowady</b>, Director of Research, <b>Alphacution Research Conservatory</b></p> <p><b>Howard Getson</b>, CEO, <b>Capitalogix Trading</b></p> <p><b>Jay Feuerstein</b>, Proprietary Trader, <b>Budo Group</b></p>	<ul style="list-style-type: none"> <li>• <b>Security &amp; compliance</b> – innovation and initiatives for bolstering security in an increasingly insecure world</li> <li>• <b>Artificial intelligence</b> – what role will smart machines play in tomorrow's exchanges?</li> </ul> <p><b>Ari Studnitzer</b>, Director, <b>Technology &amp; Architecture, CME Group</b></p> <p><b>Chuck Mackie</b>, Senior Advisor, <b>Maven Wave Partners</b></p>
<p><b>12:00</b></p> <p><b>Panel: FPGAs, acceleration technologies, GPUs and high-performance hardware</b></p> <ul style="list-style-type: none"> <li>• <b>Budget balancing</b> –speed vs. capacity and latency vs. performance</li> <li>• <b>Parlaying speed into intelligence</b> – how are new classes of server technology enabling deterministic performance in addition to cutting latency?</li> <li>• <b>Measuring the value of FPGA enhanced functionality</b> – how can they optimize trade workflow and be applied beyond the traditional domains of market data acquisition and distribution?</li> <li>• <b>Key differentiators for high-performance servers</b> – what features can provide latency-sensitive trading firms with superior performance in connectivity, data access and computation?</li> </ul> <p><b>Robert Walker</b>, CTO, <b>xCelor</b></p> <p><b>Andrew Curto</b>, Head of Research &amp; Strategy, <b>G2 Trading Trading</b></p>	<p><b>GPS &amp; location-tracking data – bleeding-edge applications for predicting market behavior</b></p> <ul style="list-style-type: none"> <li>• How can trading firms apply data from tracking the real-time movement of goods across land, air and sea?</li> <li>• How can real-time information about road traffic be used to provide insights into economic trends?</li> <li>• Further applications of real-time GPS – crude oil, crop yields, manufacturing, construction</li> </ul> <p><b>Using sentiment analysis to inform trading decisions – a viable long-term strategy?</b></p> <ul style="list-style-type: none"> <li>• <b>Reliable or liability?</b> Given the inclusive nature of social media, how reliable are datasets in predicting future asset prices?</li> <li>• <b>Positive vs. negative sentiment</b> – do they have different effects on the intensity and duration of price movements?</li> <li>• <b>Blogs vs. news vs. social media</b> – do different sources of sentiment impact price movements differently?</li> </ul> <p><b>Brett R. Schlapfer</b>, Managing Member, <b>Bullet Hill Capital</b></p>	<p><b>David vs. Goliath – how are savvy smaller exchanges adapting in the consolidation era?</b></p> <ul style="list-style-type: none"> <li>• How are forward-thinking trading venues using their technology and infrastructure dollars to drive efficiency and performance?</li> <li>• Crowdfunding and other unconventional, disruptive business models</li> <li>• Risks and rewards of pursuing partnerships with larger exchanges</li> </ul> <p><b>Thapelo Tshole</b>, CEO, <b>Botswana Stock Exchange</b></p> <p><b>Blockchain regulatory rigmarole – is the current environment facilitating innovation?</b></p> <ul style="list-style-type: none"> <li>• Global initiatives – do we need more international collaboration to develop appropriate policies?</li> <li>• Stakeholder reaction – are key market players, regulators and policymakers encouraging the development and integration of distributed ledger technology?</li> <li>• Regulating the unregulatable – how can regulators make sure they approach blockchain in a way</li> </ul> <p><b>Rajeev Ranjan</b>, Special Policy Advisor, <b>Federal Reserve Bank of Chicago</b></p>



CONFERENCE DAY ONE MAY 17, 2017			THE TRADING SHOW CHICAGO 2017	3/6	26
12:40	Networking Lunch				
	Connectivity and Latency Management	Machine Learning	Blockchain Risks and Rewards		
2:00	<p><b>Panel: Ultra-low latency connectivity – how is the game of speed changing in today's automated trading environment?</b></p> <ul style="list-style-type: none"><li>• <b>Cloud &amp; carrier neutral co-location</b> – selecting the right connectivity for your firm</li><li>• <b>Fiber vs. microwave vs. millimeter wavelength</b> – comparing and contrasting new developments in network connectivity</li><li>• <b>Benefits beyond latency</b> – how can you parlay low latency into high trading intelligence?</li><li>• <b>Network monitoring</b> – solutions, methods and technologies for identifying trends, detecting outliers and correcting excessive latency and jitter in real time</li><li>• How can you accurately measure latency and jitter in a microsecond-sensitive ultra-low latency networking environment?</li><li>• <b>Next-generation data centers</b> – open infrastructure, software-defined technologies and automation</li></ul> <p><b>John Robison</b>, CEO, <b>Cape City Command</b></p>	<p><b>Apache Spark – core statistics and machine learning models</b></p> <ul style="list-style-type: none"><li>• What are the key tenets of Spark's distributed computing framework?</li><li>• Building statistical and machine learning applications using Apache Spark</li><li>• Applying and scaling algorithms to solve enterprise big data challenges</li></ul> <p><b>How and when machine learning methods can be applied to automated trade decisions</b></p> <ul style="list-style-type: none"><li>• How to extract relevant features from level II exchange data and apply machine learning methods to predict near-term directional price movements using scikit-learn and Pandas</li><li>• How to create and perform simple backtests of trading strategies</li><li>• How to navigate the engineering challenges of creating production grade machine learning-based strategies</li></ul> <p><b>Matthew Dixon</b>, Assistant Professor of Finance, <b>Illinois Institute of Technology</b></p>	<p><b>The dark side of decentralization – what are the hidden risks in a blockchain revolution?</b></p> <ul style="list-style-type: none"><li>• <b>Consumer protection</b> – combating fraud, theft, counterparty default and other risks in the absence of a central authority</li><li>• <b>Volatility exposure</b> – safeguarding against extreme price fluctuations without a central bank and/or other means of economic stabilization</li><li>• <b>Enforcement</b> – how can regulatory bodies enforce rules and standards in a decentralized environment?</li></ul> <p><b>Bryant Nielson</b>, Executive Director, <b>The Blockchain Academy</b></p> <p><b>Accelerating blockchain's performance – current limitations and promising directions</b></p> <ul style="list-style-type: none"><li>• Accelerating distributed synchronizations and mining operations across blockchain applications</li><li>• Effective splitting of functions and computational loads between hardware substrates and software</li><li>• Vertical automata partitioning across blockchains' implementation layers for scalable throughput</li><li>• Leveraging proven, massively-parallel, concurrent computing technologies for blockchain performance</li></ul> <p><b>Mehmet Yanilmaz</b>, Partner, <b>Myra Trading</b></p>		
2:40	<p><b>Microwave lines – a review of the latest developments</b></p> <ul style="list-style-type: none"><li>• Improving regulation through transparency and complexity reduction</li><li>• More routes? What to expect</li><li>• Methods of ensuring reliability</li></ul> <p><b>Stephane Tyc</b>, Co-Founder, <b>McKay Brothers</b></p>	<p><b>Implementing deep learning algorithms to forecast market trends</b></p> <ul style="list-style-type: none"><li>• What are deep neural networks (DNNs) and how has their predictive power been harnessed in the speech transcription and image recognition communities?</li><li>• How has the computational complexity of DNNs hindered its adoption to predicting behavior in the financial markets?</li></ul>	<p><b>How is innovation driving change to the capital markets intermediary?</b></p> <ul style="list-style-type: none"><li>• Regulatory impact – how are new rules impacting stress testing, trading, clearing, settlement and other business functions?</li><li>• New blood – assessing the proliferation of dark pools and multi-asset trading venues</li></ul>		

CONFERENCE DAY ONE MAY 17, 2017			THE TRADING SHOW CHICAGO 2017	4/6	27			
		<ul style="list-style-type: none"><li>• How can the algorithm be effectively deployed on general purpose high-performance infrastructure?</li></ul> <p><b>Gaurav Chakravorty</b>, Co-Founder, <b>qplum</b></p>	<ul style="list-style-type: none"><li>• The blockchain effect – how will the maturation of distributed ledger technology impact financial intermediaries?</li><li>• Could it actually render obsolete the need for a third-party "trust provider" for transactions?</li><li>• Short &amp; long-term outlooks – how will the intermediary add value in 2017, and in the more distant future?</li></ul> <p><b>David Rutter</b>, Founder &amp; Managing Partner, <b>R3CEV</b></p>					
3:10	Afternoon Networking Break							
3:30	INTERACTIVE ROUNDTABLES							
	<ol style="list-style-type: none"><li>1. Robo-advisors – threat or opportunity to traditional asset management?</li><li>2. Java – programming for quantitative finance</li><li>3. Docker and containerization</li><li>4. Backtesting in the cloud securely and at scale</li><li>5. Permission vs. permissionless blockchain</li><li>6. Best practices for assessing and responding to real-time market data quality in latency critical trading systems <b>David Taylor</b>, CTO, <b>Exegy</b></li><li>7. Non-traditional data &amp; AI – how to leverage unstructured data sourced for alpha generation for market and credit risk <b>Vikram Mahidhar</b>, SVP, Semantic Intelligence Solutions, <b>RAGE Frameworks</b></li></ol>							
	Big Data Infrastructure & Architecture	Data Analytics, Risk & Returns	Smart Contracts & Digital Currencies					
4:10	<p><b>Panel: Enterprise data management – how are you applying innovative technologies to streamline and modernize the information lifecycle?</b></p> <ul style="list-style-type: none"><li>• <b>Warehousing &amp; integration</b> – best practices for building an enterprise data warehouse and unifying data management across different IT teams and departments</li><li>• <b>Standardization</b> – what are the benefits of a common industry language, or financial Rosetta Stone, on operational efficiency and regulatory reporting?</li><li>• <b>Storage</b> – deploying cloud servers and software-defined data centers to maximize storage efficiency and scalability; maintaining storage requirements to accommodate new data sources and exponentially growing data volumes</li></ul>	<p><b>Data visualization – charts, graphs and tools to facilitate pattern detection in large data sets</b></p> <ul style="list-style-type: none"><li>• <b>Real-time insights</b> – how can traders use visualization technology to aid in real-time pattern discovery and outlier detection?</li><li>• <b>Lower risk &amp; higher returns</b> – how are forward-thinking firms using visualization platforms to mitigate risk and maximize returns during the pre-trade, intra-trade &amp; post-trade processes?</li><li>• <b>Middle &amp; back office applications</b> – how can visualization techniques enhance portfolio/risk management, regulatory compliance and other operational functions?</li></ul>	<p><b>Smart contracts – what's the deal?</b></p> <ul style="list-style-type: none"><li>• <b>Establishing a definition</b> – can "smart contracts" simply be defined as a piece of software stored, verified and executed on the blockchain?</li><li>• <b>Use cases in finance</b> – is clearing and settlement the most promising domain for smart contract automation? What about digital wallets? Loans? Escrow?</li><li>• <b>Adoption challenges</b> – legal/regulatory considerations, integration into business ecosystem, lack of standards/best practices</li><li>• When should companies use blockchain-enabled smart contracts instead of existing technology?</li></ul> <p><b>Susan Ramonat</b>, Chief Risk Officer &amp; Blockchain Program Lead, <b>SEI Investments</b></p>					

- **Governance** – how to design an effective data governance strategy for managing regulatory risk and meeting compliance demands
- **Roadblocks** – data quality issues; integrating big data technologies with legacy IT infrastructure
- **Transaction cost analysis (TCA)** – why have performance measurement solutions for post-trade, intra-day and real-time cost analysis become so vital to the trade lifecycle?
- **Capturing, cleansing, storing and analyzing** cross-asset and cross-geography data for alpha discovery in turbulent market conditions
- **Vendor relationships** – the build vs. buy puzzle and working with your provider to improve performance, capacity and cost efficiency

**Tim McKnight**, Application Delivery CTO, **UBS Asset Management**

**Peter Nabicht**, Principal, **PFN Consulting**

**Louis Lovas**, Director, **OneMarketData**

**FinTech Education - leveraging technology to understand finance, analytics, and data in theory and practice**

- **Say it** (Ying & Yang) – hardcore math made easy
- **See it** (Visualization) – voiced-over simulations as opposed to lecture recording
- **Do it** (Interactive computing) – live data, cloud-based computing, hosted editing for on-the-fly replication
- **Share it** (Community) – slide neutralization, feedback looping
- **Frame it** (Cross-linking) – multi-media interconnectivity, spoke-to-hub architecture

**Attilio Meucci**, Chief Risk Officer, **KKR**

**Algorithmic trading of digital currencies – untapped alpha for prop firms?**

- **Prevalence** – how much current volume is created by automated strategies?
- **Developing a trading strategy** – what works best?
- **Digital currency markets vs. traditional markets** – liquidity, execution, trading fees

**Panel: Beyond Bitcoin – illustrating the landscape for emerging and established digital currencies**

- **Market size, growth, competition & composition** – with the cryptocurrency market exceeding \$10 billion in 2016, what are the growth expectations in 2017 and 2018?
- **Comparing & contrasting cryptocurrencies** – mining requirements, exchange rates, market cap, payment applications, anonymity and other special features
- **Bitcoin alternatives** – will alternative currencies like Litecoin and Ripple challenge Bitcoin's dominance?

**Bobby Cho**, Digital Currency Trader, **DRW Trading Group**

**Tommi Vuorenmaa**, Proprietary Trader & Blockchain Expert

**Ezra Galston**, VC, **Chicago Ventures**

**Edward Weinhaus**, Managing Director, **AdvisoryFX**

**Panel: Risky business – how are top quant funds managing, modeling and measuring risk?**

- How are portfolio managers accurately assessing risk as modern markets become increasingly complex and volatile?
- How can you leverage next-generation data management and analytics tools for providing an integrated view of portfolio risk exposure across time horizons and asset classes?
- Risk modelling – how can new validation tools be applied to ensure accuracy?
- Predictive analytics – how are you using predictive tools to measure risk?

**Euan Sinclair**, Partner, **Talton Capital Management**

**Brian Miller**, Head of Quantitative Research & Strategy, **Optimized Trading**

**Carl Hopman**, Director of Quantitative Research, **Perot Investments**

**Boris Albul**, Chief Investment Officer, **QSF Capital Management**

**Panel: Re-thinking IT infrastructure for latency-sensitive trading – compute, storage and networking**

- **Compute infrastructure** – batch vs. stream processing, Apache Storm, Map4
- **Storage infrastructure** – cluster computing, in-memory computing
- **NoSQL/NewSQL databases** – Hadoop, Spark, MongoDB
- **Process externalization & the cloudification of trading** – how should your IT department respond to the "everything as-a-service" (XaaS) revolution?
- **High-performance and overclocked servers** – custom hardware-based solutions for extreme low latency, high-frequency and bandwidth

**Mark Granzow**, Senior Technology Officer, **BMO Capital Markets**

**Patrick Scateni**, Vice President, **CIARA**

**Heath Hutchinson**, Director, **Supermicro**

**Adam Honore**, CEO, **MarketsTech**

4:50

5:30

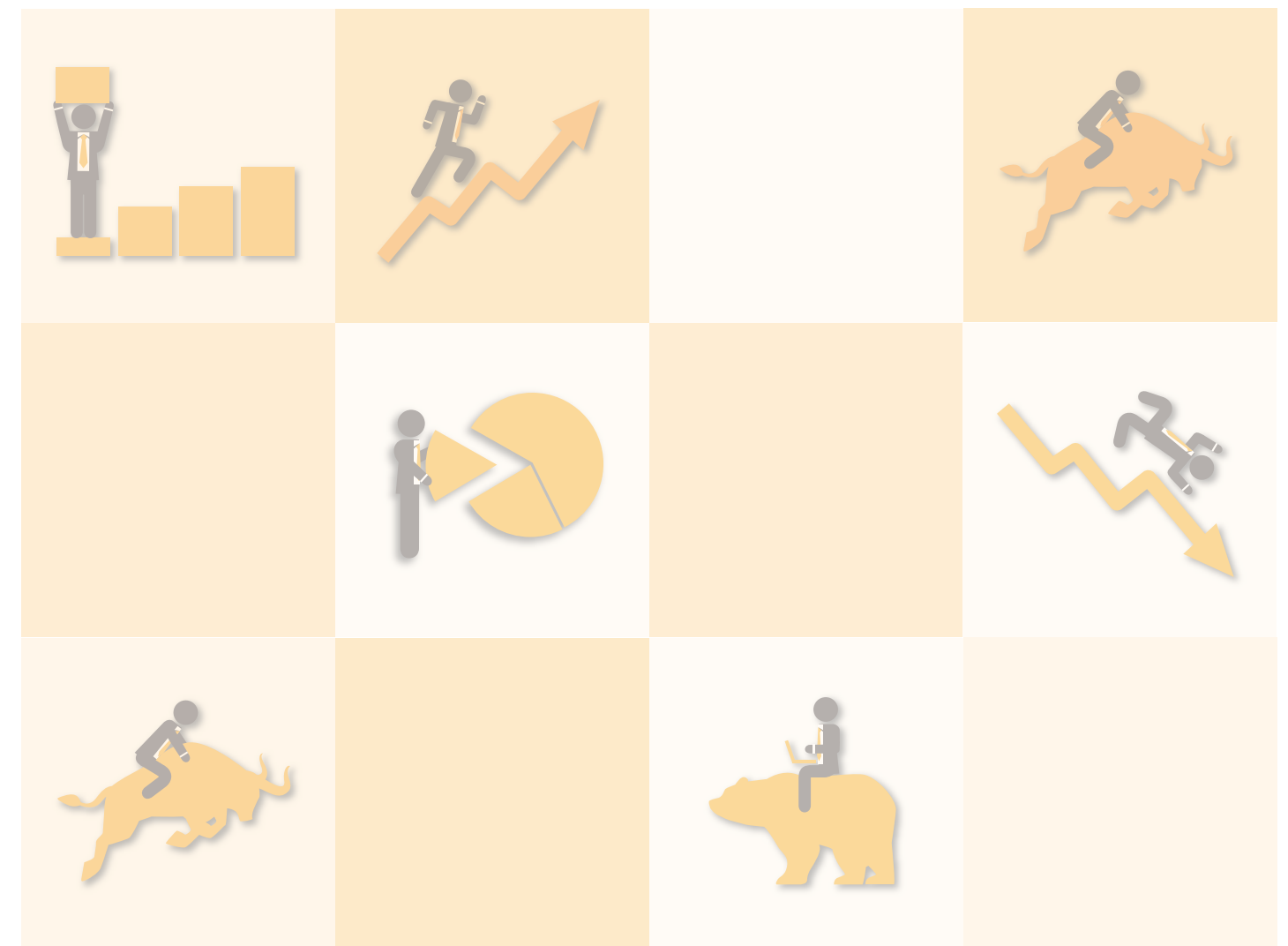
**Surviving disruption – an actionable guide to investment success in the era of FinTech**

- Robo-advisors – current state and future evolution
- Adaptation for traditional advisors – how can human financial advisors use evolving regulations, customer demand and technology to optimize their business processes and operations?
- Gamification – how it can produce better investors?
- New normal – to what extent is financial technology innovation fundamentally changing the rules of investing? Where is current technology best utilized in new-age investment management?

**Paolo Sironi**, Author, **FinTech Innovation: From Robo-Advisors to Goal Based Investing and Gamification**

5:50

End of Conference Day 1



For more information, and to register, please visit [www.terrapinn.com/TradingChicago](http://www.terrapinn.com/TradingChicago)



8:00	Breakfast & Registration
9:00	Chairman's Opening Remarks
	Disruptive Products, Platforms & Business Models
9:10	<p><b>High-performance computing and algorithmic trading – how will new breakthroughs in advanced computer science change the game? (topic to be updated)</b></p> <ul style="list-style-type: none"><li>How can we define the use of HPC using common patterns drawn from computer science and finance?</li><li>How can we use these patterns to improve the applicability of existing research, facilitate the genesis of new research and increase system capability/throughput?</li><li>Examining HPC use cases, bottlenecks and engineering solutions across market data, pricing, market surveillance, portfolio optimization, strategy backtesting, pricing and risk</li></ul> <p><b>Brian Peterson</b>, Partner &amp; Head of Algorithmic Trading, <b>DV Trading</b></p>
9:30	<p><b>Trading the Trump factor – a new source of portfolio alpha?</b></p> <ul style="list-style-type: none"><li>Measuring the relationship between Trump's Twitter sentiment, the overall market mood, and the short and longer-range price and volatility impact on companies, currencies, and nations</li><li>Will it be a viable strategy to develop algorithms designed to take advantage of short-term price discrepancies caused by a presidential tweet?</li><li>Presidential tweet risk – what unintended consequences might emerge as a result of Trump's penchant for Twitter?</li></ul> <p><b>Efrem Hoffman</b>, CEO &amp; Founder, <b>Running Alpha Investment</b> <b>James Koutoulas</b>, CEO, <b>Typhon Capital Management</b> <b>Jeff Weniger</b>, Director, Senior Strategist, <b>BMO Wealth Management</b> <b>Julie Dixon</b>, President, <b>Titan Regulation</b></p>
10:10	Morning Networking Break
	Pricing, Valuation & Portfolio Construction
10:40	<p><b>Trend, carry and hedging premium</b></p> <ul style="list-style-type: none"><li>Why carry is a significant component of trend</li><li>Conditioning trend signals on basis improves performance</li><li>Trend following correlation to hedging premium vs. carry correlation to hedging premium</li></ul> <p><b>Marat Molyboga</b>, Chief Risk Officer, <b>Efficient Capital Management</b></p>
11:00	<p><b>Global macro indicators for predicting broad market volatility</b></p> <ul style="list-style-type: none"><li><b>Two rules for forecasting volatility</b> – tomorrow's volatility is the same as today's and long-term volatility will be what it has always been</li><li><b>Fed-induced schizophrenia</b> – the impact of central bank policy on market fits and tantrums</li><li><b>Geopolitical events</b> – how will the incoming Trump administration impact the market's fear gauge?</li></ul> <p><b>Euan Sinclair</b>, Partner, <b>Talton Capital Management</b></p>
	Automation & Real-Time Intelligence
11:20	<p><b>"Automating the macro narrative" – how all types of traders and investors can approach automating operations, analytics, and execution</b></p> <ul style="list-style-type: none"><li><b>Analytics</b> – case study about how John automated his market analytics through both off-the-shelf products and custom built applications</li><li><b>Operations</b> – how John reconciles brokerage statements, expenses, and P&amp;L attribution across multiple strategies and multiple accounts</li><li><b>Execution</b> – the process to automate some or all of your execution through off-the-shelf software applications or building your own proprietary execution software</li><li><b>Seven Steps</b> to build a proprietary software application</li></ul> <p><b>John Netto</b>, Cross-Asset Trader &amp; Author, <b>The Global Macro Edge: Maximizing Return Per Unit-of-Risk</b></p>
11:40	<p><b>Five serious option trading mistakes and their solutions</b></p> <ul style="list-style-type: none"><li>How to create and manage specific directional option trading strategies for both short term and long term timeframes</li><li>Establishing specific trading guidelines, profit and risk management objectives to enable consistent reactions to the market</li><li>A proprietary approach to Behavioral Japanese Candle trading techniques</li></ul> <p><b>Daniel Gramza</b>, President, <b>Gramza Capital Management</b></p>

12:00	<p><b>The value of microsecond – an analysis of the information flows within the New Jersey equity triangle (BATS, NASDAQ, NYSE) (topic to be updated)</b></p> <ul style="list-style-type: none"><li>Tick data analysis of the trade-trade response between exchanges</li><li>What exchange drives the majority of price formation within the equity triangle?</li><li>The value of a microsecond on a per route basis, calculated both for latency and highest availability</li></ul> <p><b>Mike Persico</b>, Founder &amp; CEO, <b>Anova Technologies</b></p>
12:30	Networking Lunch
3:30	<p>INTERACTIVE ROUNDTABLES</p> <ol style="list-style-type: none"><li>Anomaly detection</li><li>Market surveillance</li><li>Compute vs. storage in your infrastructure stack</li><li>Grid vs. cluster computing</li><li>Database models – comparing and contrasting NoSQL, SQL and NewSQL</li><li>Using Cassandra, MongoDB and others for tick data storage</li><li>Supervised vs. unsupervised deep learning</li><li>OpenStack</li><li>Trend following for managed futures – best practices for capturing alpha</li></ol> <p><b>Glenn Graham</b>, President &amp; CIO, <b>Golden Point Capital Management</b></p>
2:40	Afternoon Networking Break
	Market Structure, Regulation & GRC
3:10	<p><b>Market structure and regulation in the futures and options market</b></p> <ul style="list-style-type: none"><li>How will the proliferation of new trading venues affect your trading strategy?</li><li>How will current and future regulation, i.e. REG-NMS, Order Protection Rule, Access Rule, Sub-Penny Rule, address predatory automated, high-frequency trading strategies?</li><li>How are the nuances of modern market microstructure affecting volatility and liquidity across asset classes?</li><li>The latency barrier and its impact on achieving best execution – have the markets sacrificed fairness for speed?</li></ul> <p><b>Serhan Kovuk</b>, Managing Member, <b>LaSalle Trading Group</b></p>
3:30	<p><b>Regulation AT – how would the CFTC's landmark proposal affect proprietary traders, market fairness and systemic risk?</b></p> <ul style="list-style-type: none"><li>How would the CFTC and other government agencies use proprietary source code obtained from automated traders to reduce the likelihood of "flash crashes" and other harmful market disruptions?</li><li>Do the potential benefits justify significantly lowering the bar for government access to intellectual property?</li><li>How will regulators protect source code from hackers and cyber-breaches?</li><li>How would market participants, particularly smaller ones, handle the higher compliance costs created by Reg AT's increased risk controls, reporting demands and recordkeeping requirements?</li><li>How should exchanges and trading venues be involved in the oversight process?</li></ul> <p><b>Nancy Stern</b>, EVP &amp; General Counsel, <b>Allston Trading</b></p>
	Programming & Software Development
3:50	<p><b>Using Python for financial data analysis</b></p> <ul style="list-style-type: none"><li>Python basics – development environment and scientific libraries</li><li>Data management – connecting your Python-based trading strategy to the big data ecosystem</li><li>Research process – the nuts and bolts of building a quantitative trading strategy using Python</li></ul> <p><b>Yam Peleg</b>, Founder, <b>Deep Trading</b></p>
4:10	End of Conference



# SPONSOR NOW

## OUR PACKAGES OFFER HIGH VALUE INCLUDING

- The chance to meet hundreds of trading firms, quant/hedge funds, banks, exchanges and more.
- The opportunity for you to invite your customers and prospects
- A 1-2-1 partnering service, where we set up meetings for you
- The opportunity to raise your credibility and establish thought leadership

## WHY EXHIBIT?

- Debut new products
- Demonstrate existing and complicated processes
- Provide a meeting branded place for clients at the event
- Keeping your brand front of mind
- Brand and marketing exposure
- Raise credibility
- Generate leads and make sales

## WHO YOU WILL MEET?

Trading Firms, Quant/Hedge Funds, Banks, Global Exchange Groups

- CTO's
- Head Traders
- Portfolio Managers
- Financial Engineer's
- Network Architects
- CIO's

## WHO SHOULD SPONSOR AND EXHIBIT?

- Data Providers
- Hardware
- Software
- Brokers
- Connectivity Providers
- Exchanges/Trading Venues
- Big Data Vendors
- Quant Model/Risk
- Cyber Security
- HPC Vendors

# THE TRADING SHOW

CHICAGO 2017



No	Company
100	McKay Brothers/ Quincy Data
101	BSO
102	
103	
104	euNetworks
105	DDN Storage
106	SigOpt
107	BlackCore Technologies
108	Rage Frameworks
110	Aldec
112	Cielo Networks
114	Avelacom
116	Exegy
118	Netcope Technologies
120	LDA Technologies

No	Company
121	SAFTehnika, JSC
122	Solace
123	E-Band Communications
124	Vela
125	University of Chicago
200	Anova Technologies
201	Supermicro NovaSparks
202	Cape City Command
204	Solarflare
205	tecnologika USA Spread
206	Networks Napatech
207	
208	
300	Algo-Logic
301	Datawatch

No	Company
302	Penguin Computing
303	International Computer Concepts
304	Bright Computing
305	CIARA
306	Metamako
307	Avere Systems
309	RAID Inc.
311	ENYX
313	McObject
314	Key2Options
315	OneMarketData
316	Vertica
317	Acquire Media
318	ITRS

No	Company
319	Global Financial Data
320	Nadex
321	Titan Regulation
322	
323	Commodity Futures Trading Commission
324	BIOS IT
325	NAG
400	
402	Reserved
404	TMX
405	
406	Trading in Chicago
408	Grupo Financiero Interacciones



Book your ticket today at [www.terrapinn.com/tradingchicago](http://www.terrapinn.com/tradingchicago)



# INTRODUCING OUR EVENT TECHNOLOGY PARTNER JUBLIA.

Trading Show Chicago recognizes the importance of networking. Jublia offers a unique service, combining the latest in networking software with a personal touch to provide an easy-to-use approach for you to facilitate quality networking opportunities.



## So, how does it work?

4 weeks before the event, you will be sent an email containing your personalized link. Click on this link to access the full attendee list. Once here, you can input search criteria. Jublia then uses this information to rank the attendee list in order of their relevance to you!

Simply click on the name of who you would like to meet and securely send them a meeting request. The system acts as your meeting diary, keeping track of your availability and avoiding double bookings. The system will also assign you a "Meeting Table", so you are guaranteed a nice spot onsite to conduct the meeting.

Terrapinn staff will be on hand to help!

For more information visit [www.terrapinn.com/chicago](http://www.terrapinn.com/chicago)



 If you are interested in learning more about our 2017 media partners, contact **Lauren Geary** at +1 646 619 1807 or [lauren.geary@terrapinn.com](mailto:lauren.geary@terrapinn.com)

34

# 10 REASONS TO ATTEND

1.

Join quantitative finance legend **Bob Litterman** as he discourses on how to appropriately price mankind's greatest risk management problem --- carbon emissions

2.

Debate how a Donald Trump presidency, and his penchant for Twitter, could impact the markets and your trading strategy with **Alpha Running Investment**, **Typhon Capital Management** and **BMO Wealth Management**

3.

Explore the current framework for market structure and regulation in futures and options from Serhan Kovuk, Managing Member from **LaSalle Trading Group**, Nancy Stern, EVP for Allston Trading and other experts in the regulatory food chain

4.

Join **Alphacution Research Conservatory**, **Budo Group** and **Capitalogix Trading** for insightful discourse on how non-traditional data from emerging sources like nanosatellites, drone imagery and Internet of Things, could be applied to capture alpha

5.

Journey through the trade lifecycle as **Myra Trading** leads a discussion alongside **Belle Curve Capital** and **Saffron Trading Group** on achieving best execution in today's technologically advanced landscape of broker algorithms, liquidity sources and evolving market structure

6.

Take the distributed ledger debate to the phase two as **SEI Investments**, **The Blockchain Academy**, **R3CER** and other frontline experts explore regulation, decentralization, consumer protection and the genesis of a new financial system during a would-be blockchain revolution

7.

Get a crash course on all things digital currencies as experts from **DRW Trading** and **AdvisoryFX** give their insights on whether this nascent asset class holds untapped alpha for proprietary traders

8.

Browse through the expo hall and discover the next-generation trading technology solutions from world-class vendors like **NAG**, **NovaSparks**, **xCelor**, **Bright Computing**, **Exegy**, **Penguin Computing** and many more

9.

Learn how to survive in the new democratized world of finance shaped by robo-advisors, automation and data analytics with **Paolo Sironi**, accomplished author and global authority on investment innovation

10.

Soak up the mathematical genius of **Bill Chen**, professional card player and Head of Statistical Arbitrage at **Susquehanna International Group**, as he draws a common thread between poker, game theory and trading



35

 Register now! Visit [www.terrapinn.com/tradingchicago](http://www.terrapinn.com/tradingchicago) for your ticket!

# THE EARLYBIRD GETS THE WORM...

36

...never has this been truer than at the Trading Show Chicago 2017.



This year we are mixing things up! We have 50 passes per tiered price. As soon as we have sold 50, the price will go up. So the earlier you book the more you'll save – really!

It's really easy to book your place online. And our online calculator will ensure you take advantage of the best deal.

Go to and book now on [www.terrapinn.com/tradingchicago](http://www.terrapinn.com/tradingchicago)

	DELEGATE BOOKING				
	TIER 1	TIER 2	TIER 3	TIER 4	Final Price
2 DAY CONFERENCE	\$2,000	\$2,125	\$2,250	\$2,375	\$2,500
2 DAY CONFERENCE PASS- GROUP OF 3+	\$ 1,000	\$1,062	\$1,125	\$1,185	\$1,255



## Book now and get the offer price - on your phone

Scan this QR pattern with the camera on your smartphone and register with a discount code BD2017 at the special offer price.

Don't have a QR reader app? You can download one for free from App Store.

You can also register our website  
[www.terrapinn.com/tradingchicago](http://www.terrapinn.com/tradingchicago)

## BOOK NOW

Go to [www.terrapinn.com/tradingchicago](http://www.terrapinn.com/tradingchicago) or call +1 212 379 6320

# OUR SPONSORS & EXHIBITORS

37

## GOLD



## SILVER



## BRONZE



## ASSOCIATE SPONSORS & EXHIBITORS

