

# Algorithms in trading and investing

**20 - 21 November 2007, London**

## Course Objectives

By the end of the course, you will be fully versed in the practicalities of employing algorithms in electronic trading.

- Classifications and comparisons of types of algorithms
- What buy and sell side use, what are the opportunities and issues for each?
- How to choose and design appropriate algorithms for impact and reliability
- Identify algorithms for active/passive trading and portfolio management
- The appropriateness of different trading or investment strategies for algorithmic trading and the operational and regulatory issues
- System requirements, the options available and the best approach for implementation
- How algorithms impact on market micro and macro structure
- Comparison of using simple and off the shelf algorithms with the practical implementation of complex proprietary algorithms
- How to manage an algorithmic trading platform in practice

In association with:

## Course Overview

The two-day course has been designed for delegates who wish to understand how they can use algorithms to meet their trading or investment objectives. This course will begin by examining the different classifications of algorithms, which of them the buy side and sell side use and what opportunities this exciting new field holds.

Delegates will then be taught what the technology and data requirements are for practical implementation and what systems are available to meet their needs. Delegates will then learn how to select appropriate algorithms and what impact algorithms have on market macro and micro structure.

The final part of the course will teach delegates to identify algorithms to suit active/passive and portfolio management trading styles. By the end of the course delegates will be fully versed in the practical implementation issues of algorithmic trading and how to manage an algorithmic trading platform in practice.

## DAY 1

### History and recent developments

- Evolution of algorithmic trading
- Scope of algorithmic trading today
- Current and future changes in the marketplace
- Regulatory and infrastructure aspects

### Classification of algorithms

- Speed critical/static algorithms
- Intelligence critical/dynamic algorithms
- High frequency algorithms
- Low frequency algorithms

### Sell side vs. buy side usage and issues

- Buy side usage and opportunities
- Sell side usage and opportunities
- Key requirements for the respective platforms
- Operational and market impact

### System options and requirements

- Building vs. buying a system
- Insourcing vs. outsourcing
- Showcase: What is available? What has to be built?
- Basic platform design and setup
- Sample rapid deployment options

PRACTICAL EXAMPLES AND COMPUTER SIMULATIONS USED THROUGHOUT THE PROGRAMME

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## DAY 2

### **Efficient algorithm selection and specification**

- Choosing the appropriate algorithms
- Designing algorithms for maximum impact and reliability
- Conquering complexity and dependence issues
- Algorithm and platform/infrastructure interaction issues

### **Impact of algorithms on market micro and macro structure**

- Market micro structure and algorithms
- Market macro structure and algorithms
- Impact of algorithms on the market
- Examples of how to exploit rather than being exploited by changing market structures

### **Algorithms for active/passive trading and portfolio management**

- Differences in requirements/prerequisites for different styles
- Appropriateness of strategies and operational/regulatory pitfalls
- Active trading/portfolio management issues and strategies
- Passive trading/portfolio management issues and strategies

### **Practical examples of algorithms and their usage**

- Simple and off the shelf algorithms and tools in practice
- Complex algorithms and practical implementation
- Combining off the shelf tools and custom extensions
- Managing an algorithmic trading platform in practice

PRACTICAL EXAMPLES AND COMPUTER SIMULATIONS USED THROUGHOUT THE PROGRAMME

## Teaching Methods

The course will be hands on with many relevant practical examples. The course will move from the understanding and building of algorithms and their classifications, to selecting and using complex algorithms to meet your investment objectives.

Along the way, key issues that affect the development and day to day running of an algorithmic trading platform in practice will be highlighted and discussed in detail.

## Course Level

This is an intermediate course, but delegates will only need a basic understanding of algorithms and their use in trading and investment to follow as the course will gradually build up the complexity of the subject.

Practical product and trading experience is very helpful but not absolutely necessary as strategies and their unique features will be explained in detail. Practical examples and computer simulations are used throughout the programme.

A solid background in Math and Statistics is also very helpful but not a precondition as the emphasis is on understanding practical concepts and techniques rather than theoretical modelling.

## Who Should Attend?

The course will be of use to delegates who are working in capital markets/derivatives who wish to gain a thorough understanding of algorithms in trading and investing:

- Portfolio and fund managers
- Proprietary/statistical arbitrage traders
- Prime brokers
- Sales trading managers
- Hedge fund traders and managers
- Equities, bonds, currency & derivatives traders
- Risk managers
- Analysts
- Treasury managers
- Operations and IT Managers

## Course Director

### **Peter van Kleef, Principal and CEO, Lakeview Arbitrage**

Prior to his role at Lakeview, Peter managed significant hedge fund type investment portfolios and quantitative trading departments for among others Cooper Neff, Salomon Brothers, HypoVereinsbank and Credit Lyonnais. He has over ten years of experience in the development and running of sophisticated automated trading operations. He holds a MBA degree from the Owen Graduate School at Vanderbilt University, Nashville, USA. He is a frequent speaker on complex arbitrage strategies with a focus on volatility arbitrage and high frequency algorithmic trading. He is also a well known consultant to the investment community with regards to trading, risk management, operational and strategic issues.

## Key Programme Features

*Financial News* and *Private Equity News* are the leading weekly financial publications covering the investment banking, securities, fund management and private equity industries. The integrity of the editorial product underpins the development of the training courses to deliver innovative and practical financial training programmes of the highest quality.

- **Expert faculty** with practical experience in the financial markets will enable you to apply the academic principles whilst benefiting from their knowledge and expertise
- **Practical case studies** and **exercises** are used throughout so the skills learnt can be transferred directly to the work place
- **Group discussions** as well as question and answer sessions to address specific queries are an essential part of the course
- **Exclusive course documentation** consisting of the lecture notes and reading material is an important post-course reference
- **Evaluation** of the effectiveness of the course occurs during and after the course so you can assess the impact of the training
- **Financial News certificate** is given to demonstrate completion of the training programme

## Tailored In House

Our tailored training programmes give you a cost effective training option focused on your specific training needs. For more information please contact: Financial News on Tel: +44 (0) 20 7749 0232  
Email: training@efinancialnews.com

## Calendar of Training Courses

- |  |                            |
|--|----------------------------|
| • Private Equity Strategy & LBO Modelling    | 5-6 September, London      |
| • Excel Modelling for Financial Markets      | 18-19 September, London    |
| • UCITS III Investment Strategies & Products | 18-19 September, London    |
| • Hedge Fund of Funds                        | 25-26 September, London    |
| • IFRS for Investors                         | 26-27 September, London    |
| • Leveraged Finance                          | 19-20 September, Stockholm |
| • Volatility Trading and Investment          | 15-16 October, London      |
| • Leveraged Finance                          | 3-4 October, London        |
| • Market Data                                | 16-19 October, London      |
| • Bonds and Fixed Income Derivatives         | 22-23 October, London      |
| • Advanced Valuation & Financial Modelling   | 26-27 November, London     |

# Algorithms in trading and investing

## Register now – complete and return the registration form to:

Financial News Training, Stapleton House, 29 - 33 Scrutton Street, London, EC2A 4HU

Tel: +44 (0) 20 7749 0232 Fax: +44 (0) 20 7426 3326 Email: training@efinancialnews.com

## Price details

20 - 21 November 2007, London £1995 + 17.5% VAT = £2344.13

**Group discounts:** When 3 or more delegates from the same company and city register to attend the same event at the same time, they will receive a 10% discount on the registration fee.

**Your registration fee includes:** lunch and refreshments, pre course reading (where applicable) and course documentation pack and a 3 month subscription to *Financial News*.

## Registration details

Title: \_\_\_\_\_ First name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Job Title: \_\_\_\_\_ Department: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Post Code: \_\_\_\_\_ Country: \_\_\_\_\_

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*I have read and understood the booking terms and conditions. Your place is not guaranteed until payment has been received.*

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Please send me an invoice. Purchase order number: \_\_\_\_\_

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Account Address (if different from above): \_\_\_\_\_

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### Cancellation Policy

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Cancellations received less than one calendar month before this course or non-attendance at the course, will be charged at full rate. If your cancellation is received within one month of the course start date, and you wish to transfer to the next training course there will be a 25% transfer fee. Alternatively, if you are unable to attend you may wish to send a substitute delegate at no additional cost. Please let us know immediately of any changes. All cancellations and transfers must be received in writing.

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