THE SCIENCE OF RISK PRIZE 2015

LLOYD’S RESEARCH PRIZE FOR ACADEMICS
Information booklet
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We are proud of our relationships with universities and research organisations. Detailed understanding of risk is essential to everything we do at Lloyd’s, and the Science of Risk prize is designed to challenge researchers and Lloyd’s insurers to stretch their thinking. For researchers, the prize offers an opportunity to translate original work for a business audience. For insurers, the prize generates insights into some of the most challenging risk management problems they encounter.

Last year’s winning entries, on the theme of climate change and natural hazards, provided valuable contributions on topics of great significance for insurers. Dr Erwann Michel-Kerjan’s paper ‘Evaluating Flood Resilience Strategies for Coastal Megacities’ described novel approaches that may help to shape public policy and improve the affordability of flood insurance. Dr Juliet Biggs’ paper ‘Global link between deformation and volcanic eruption quantified by satellite imagery’ described an innovative method of predicting future volcanic eruptions, and identified key gaps in the assessment of volcanic hazards.

This year we’re welcoming applications on the theme of technology, focusing on two categories. The first is big data analytics and machine learning; the second is cyber risk.

For big data analytics and machine learning we want to see your work on how these emerging technologies can be harnessed for the understanding of risk. Supply chains, liability relationships and reputational harm are examples where technology could provide tools and techniques to help insurers assess complex risks.

For cyber risk we’re particularly interested in approaches that can help with some of the key uncertainties that impact on risk management and insurance. These include modelling and quantification of risk; systemic vulnerabilities and the propagation of threats throughout networks; and frameworks for understanding threat evolution.

We are open to entries from researchers at every stage in their career. The key attribute we are looking for is the potential to translate the work to enhance insurers’ understanding of risk.

I look forward to reading your research.

Tom Bolt
Director, Performance Management
Lloyd’s
SCIENCE OF RISK PRIZE

The aim of the Science of Risk prize is to identify published research that can contribute to innovation and better understanding of risk in insurance. A key aspect of the prize is the ability of the author to describe the significance and potential applications of their research.

For examples of entries to the 2014 Science of Risk prize please see the 2014 conference booklet available at www.lloyds.com/scienceofrisk.

THE DETAILS

> In an accompanying letter of no more than 1000 words you must summarise the key findings of your paper, why you think your research is relevant to the insurance industry and why you think your paper represents high quality research.

> Papers must be peer reviewed and have been published in a journal. Papers accepted for future publication by a journal are admissible. However, you must obtain express written permission from the publishing journal to enter the prize and for us to use your summary for promotional means.

> The paper must have been published on or after 25 September 2010.

> Jointly authored papers are acceptable, but the prize entrant must have carried out the majority of the research.

> Academic papers and the accompanying summary must be in English.

JUDGING CRITERIA

The applications will be shortlisted based on your summary and then reviewed by a panel of judges including leading academics and senior staff within Lloyd’s. The criteria for judging will include:

> Relevance to the insurance industry.

> Writing style: clear, plain English will impress us.

> Financial significance – risks that might translate into large profits or losses are clearly important and will be ranked higher.

> Novelty – new risks will score well.

> Quality of research.

Last year, we received many excellent applications for the prize. Unfortunately, we can only select a few of them as winning entries and we reserve the right not to award a prize for some or all of the categories. We do not offer an appeals procedure.

THE PRIZE

Entries for the 2015 Science of Risk Prize will be accepted under two categories:

1) Big data analytics and machine learning.
2) Cyber risk.

> We are offering prizes of £5,000 for the best research paper in each category.

> A prize of £1,000 for the best runner-up in each category will also be awarded.

> An awards dinner in Lloyd’s historic Adam Room will be held for the category winners and runners-up.

> The winners and runners-up are expected to present their work at a conference at Lloyd’s prior to the awards dinner. All entrants including shortlisted entrants are also expected to show their work on A1 portrait posters which will be shown at the event.

> Attendance at the dinner and conference is expected for all those receiving monetary prizes.

KEY DATES

> Closing date for entries: 25 September 2015

> Shortlisted entrants notified: Mid - October

> Winners notified: Week commencing 2 November 2015

> Awards conference and dinner date: 25 November 2015

ELIGIBILITY

We are keen to receive entries from researchers at every level in their career, so our competition is open to PhD students as well as qualified research staff.

You must be either working in a university department or at a government (owned or part-funded) research organisation.

OWNERSHIP OF WORK

You own your work. However, by submitting a paper to this competition Lloyd’s will have the right to reproduce an accompanying summary in whole or part on our website (www.lloyds.com) or in other Lloyd’s publications. You agree that we can attribute the work to you by name, department and organisation. We may seek to publish your research in more detail or engage a science journalist to summarise it; we will contact you and the relevant journal in this event.

ENTRY INFORMATION

Please go to www.lloyds.com/scienceofrisk for the application form. We’ll also keep you updated throughout the process from this website page. Full terms and conditions can be found at www.lloyds.com/scienceofrisk.
RISK CATEGORIES

This year we are calling for published research on the topics of big data analytics & machine learning, and cyber risk.

We regret that we won’t be able to consider subjects outside of these themes. However, you are still welcome to draw our attention to any ideas for topics – we may consider them for future years.

We’ve listed a few questions below just to get you thinking. But don’t let these constrain you; we are keen to hear about the questions you think we should be asking.

BIG DATA ANALYTICS & MACHINE LEARNING:

➢ How can one or both of these technologies be applied for the identification, measurement and management of risk?

➢ How might they help in the understanding of connections and dependencies in risk?

➢ How might they enhance risk forecasting and the development of tools such as scenarios and probabilistic models?

➢ What new risks could emerge from the increasing adoption of these technologies?

CYBER RISK:

➢ How should cyber risk be quantified?

➢ How can systemic vulnerabilities and the propagation of threats through networks be identified and managed?

➢ What approaches could be applied to understand the evolution of threats and the capability/intent of threat actors?

➢ What tools or frameworks could be applied to forecast the impact of cyber attacks?

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