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Mathematics And Finance Summer School 2018

CALL FOR APPLICATIONS

The summer school is jointly organized by Chennai Mathematical Institute, Indira Gandhi Institute of Development Research, Indian Statistical Institute, Indian Academy of Sciences, Indian National Science Academy and The National Academy of Sciences, India under the

FOCUS AREAS IN SCIENCE AND TECHNOLOGY
SUMMER FELLOWSHIP 2018

VENUE : Chennai Mathematical Institute (CMI) **DATE : 25 May 2018 to 25 June 2018**

THE FOLLOWING TOPICS WILL BE COVERED:

- Introduction to the working of financial markets
- The broad array of markets : spot vs. derivatives; commodities.
- currencies, interest rates, equities.
- The wonderful world of exchanges & algorithmic trading.
- High frequency data.
- Models of prices and returns at low and high frequencies.
- The Sysiphean quest to forecast prices Market microstructure, liquidity.
- The purpose of risk models, key ideas of risk models.
- Continuous time, the wonders of stochastic calculus applied to finance.
- Currency Market.
- Option pricing.
- Option pricing theory applied to credit risk of banks and non-financial firms.
- R implementations of some of the algorithms discussed during the summer.
- The human landscape in India, and career possibilities, in mathematics & finance.

FACULTY:

- Rajeeva L Karandikar (CMI)
- Ajay Shah (NIPFP)
- Susan Thomas (IGIDR)
- Rajeswari Sengupta (IGIDR)
- Abhay Bhatt (ISI-Delhi)
- Sourish Das (CMI)

Students (studying in III Year B Sc or BE and beyond) with interest in mathematics and its application to finance are encouraged to apply. The selected candidates will be provided accommodation on a subsidized basis and a stipend amount of Rs 10,000/- will be paid. A Certificate of Participation will be issued by the Science Academies after successful completion of the internship.

Interested applicants are encouraged to visit www.ias.ac.in and download the application format.

The filled in soft copy of the application must be submitted before 31 March 2018 to :

The Coordinator,
Science Education Programme,
Indian Academy of Sciences, C V Raman Avenue, Sadashivanagar
Bengaluru 560 080 Tel (080) 2266 1207; 2266 1202; 2266 1221
e-mail: fastsf@ias.ac.in website: www.ias.ac.in

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