

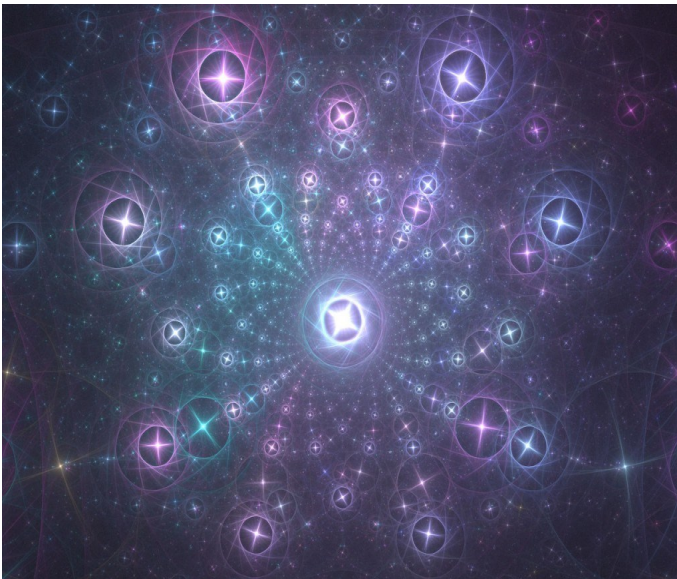
LTCC Intensive Course

For Researchers in the Mathematical Sciences

“Methods of Noncommutative Analysis”

by Dr. Rauan Akylzhanov

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Starts: **15 May** (1pm to 5pm)
Ends: **16 May** (9am to 1pm)

Venue: **Room 500, 5th Floor,
Department of Mathematics,
25 Gordon Street, UCL,
London, WC1H 0AY**

Noncommutative analysis is a young, newly emerging research field at the intersection of noncommutative geometry and classical (mainly harmonic) analysis. This course will provide an introduction up to research level. After some background from classical analysis, we introduce semi-finite von Neumann algebras and tools to 'measure the size' of 'noncommutative measurable functions'. Motivated by work of Alain Connes, we see how a Dirac-like operator can encode aspects of geometry and classical analysis. In particular, we deduce $L^p - L^q$ bounds for linear operators affiliated with quantum group von Neumann algebras. The course concludes with a discussion of open problems. Some exposure to basic functional analysis would be helpful.

Please visit www.ltcc.ac.uk/intensives for more information on the content of this course.

The LTCC is run by a consortium of universities in London and beyond. It offers a programme of high-level courses in mathematics and statistics for PhD research students in the consortium, as well as short intensive courses open to students more widely in the UK and Europe.

Registration

This special two-day course is free to attend, however prior registration is essential.

To book a place please contact: office@ltcc.ac.uk

www.ltcc.ac.uk