Prof. U. B. Tewari
Distinguished Lecture Series in Mathematics

Department of Mathematics and Statistics
Indian Institute of Technology Kanpur

Late Prof. U. B. Tewari

Title:
Special values of Hecke L-functions and equivariant cohomology

Prof. Guido Kings

Speaker: Prof. Guido Kings, University of Regensburg, Germany

Dates: 3, 4, 5, 6 November 2025 Time: 03:30 PM (IST)

Venue: L-5, Lecture Hall Complex, IIT Kanpur

Abstract

In recent years many results on the algebraicity of special values of *L*-functions and their *p*-adic interpolation have been obtained by constructing group cohomology classes related to Eisenstein series. An especially powerful method is to use equivariant cohomology in a geometric or even motivic setting. This has led to a complete solution of the Deligne conjecture for special values of Hecke L-functions and gives a conceptual way to obtain p-adic interpolation results. In this lecture series we review, in examples and in general, the obtained results on Hecke L-functions and explain the construction and use of equivariant Eisenstein cohomology classes.

About the Speaker

Prof. Guido Kings is an eminent mathematician specializing in number theory and arithmetic geometry. His research focuses on the arithmetic of motives and *L*-functions, with a special interest in the Birch and Swinnerton-Dyer conjecture (BSD)—one of the seven Millennium Prize Problems. He is also widely recognized for his influential work on Iwasawa theory and polylogarithms.

Prof. Kings has received numerous honours, including the Frontiers of Science Award for his joint paper on Eisenstein–Kronecker classes. He was an invited speaker at the International Congress of Mathematicians (2002) and is a Fellow of the American Mathematical Society.

About the Series

The lecture series is in honour of Prof. U.B. Tewari (1944-2019) for his outstanding contributions in mathematics. This annual event is generously established by his family, friends, and former students. Each year, a distinguished mathematician is invited to deliver a comprehensive short course consisting of 4-5 lectures spread over a two-week period in a forefront area of Mathematics. This year's lecture is the fourth in the series, and it includes a short course designed to engage researchers and graduate students.

https://iitk.ac.in/math/ubt-lecture/2025