



Mathematisches Kolloquium

Im Rahmen des Mathematischen Kolloquiums finden am

**Montag, den 7. Oktober 2013,
15:15 Uhr,
Hörsaal 9,**

folgende Vorträge statt:

”Measures of smoothness and Fourier transforms”

Prof. Dr. Sergey Tikhonov

ICREA and CRM, Barcelona, Spain

Abstract: In this talk we discuss some recent results related to the quantitative Riemann-Lebesgue lemma on the relationship between behavior of the Fourier transform at infinity and smoothness of a function.

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”Integrability of the Fourier transform: functions of bounded variation”

Prof. Dr. Elijah Lifyland

Bar-Ilan University, Ramat Gan, Israel

Abstract: In this talk we discuss various conditions of the integrability of the Fourier transform of a function of bounded variation and their connections to the behavior of the Hilbert transform of a related function. Correspondingly, the considered spaces of functions with integrable Fourier transform are intimately related with the real Hardy space. One of the most important connections for the two transforms is given by the space introduced (for different purposes) by Johnson and Warner.