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и математики

Школа наук

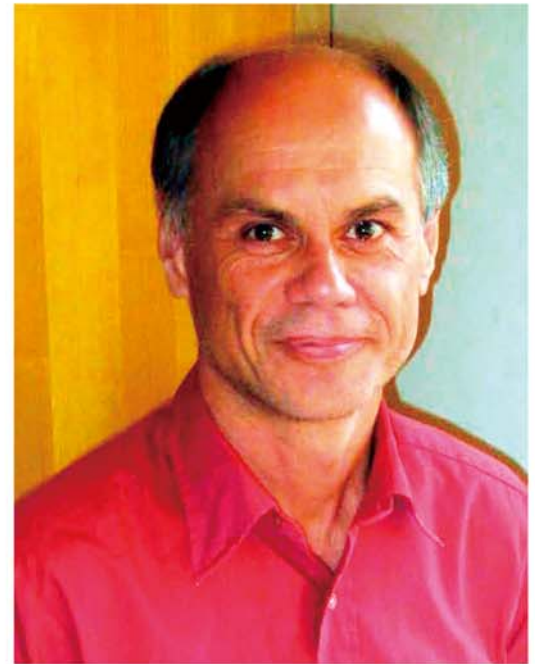
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прочтёт лекцию



"Comparison of integrals of nonnegative positive definite functions"

During my last visit in Ekaterinburg we finalized a paper (written jointly with Andrei Efimov and Marcell Gaál) dealing with a question posed to us by Sergei Konyagin. It asked for a constant $C=C(T)$, and possibly an estimate of its magnitude, which has the property that the integral of any nonnegative and positive definite function f over $[-T, T]$, or, more generally, on any $[a-T, a+T]$, is majorized by C times the integral over $[-1, 1]$. We have got a complicated estimate which was very close to being sharp. After publication, however, it turned out that the result was already obtained some 20 years ago by Logan. The only excuse for the paper's existence remained its somewhat different, more direct approach and a conjecture stating that the approach is, in principle, optimal.

Now we prove this conjecture. However, first we also generalize the whole problem – we consider integrals with respect to different measures (a suggestion / problem posed by G. Halász) and we consider such questions on locally compact Abelian groups. Several different analytic theories and technics will be combined to give surprising answers.

в субботу 17 февраля в 10:40, ауд. 513 (ул. Тургенева, 4)

Приглашаются все желающие!