



UNIVERSITÀ DI PARMA

DIPARTIMENTO DI SCIENZE MATEMATICHE, FISICHE E INFORMATICHE

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COLLOQUIUM



Data: **lunedì 19 novembre, ore 16:30**

Luogo: Aula C, Plesso di Matematica

Relatore: Prof. **Jerzy Kaczorowski**,
Accademia Polacca delle Scienze
e Università di Poznan

Titolo: **Snapshots with L -functions**

Abstract:

L-functions are the main characters in the analytic number theory. They are generating functions whose coefficients are of arithmetic nature, for instance, are related to primes, points on algebraic varieties or to automorphic representations. From the analytic point of view the basic problem is to recognize when a Dirichlet series is, in fact, an L-function. This led to a variety of classical results known as the converse theorems. The Selberg class provides a natural and very convenient framework to study such problems. It turned out that with each function from this class one can associate a Dirichlet series, known as the standard twist, which plays a crucial role in searching general theorems of the described type. Motivated by this, one would like to know as much as possible about analytic properties of the standard twists of L-functions. In the talk, some old and new results shall be presented in a way designed to non-experts in the analytic number theory.