# M E G H Í V Ó

a Rényi Alfréd Matematikai Kutatóintézet
Összintézeti Szemináriumára, melyre
2012. február 6-án, hétfőn, du. 2:15-kor kerül sor a Nagyteremben.
Előadónk és előadása címe:

**James Cogdell**
(The Ohio State University)

## L-functions, modularity, and functoriality

There is a very interesting, and still very mysterious, complex analytic invariant attached to an arithmetic object – its L-function. (The Riemann zeta function is an example.)

There is also a family of more analytic objects that have similar complex analytic invariants – modular forms or automorphic forms.

In this talk I would like to discuss both arithmetic and automorphic L-functions. I will pay particular attention to the the nature of the „Converse Theorem for GL(n)", which morally says: any object with a nice L-function should be modular. I will explain how this leads naturally to both Langlands' conjectures on the modularity of Galois representations and Langlands' Functoriality conjecture. Finally I will discuss the Converse Theorem as a practical tool for establishing functoriality, concentrating on the cases of the lifting of automorphic forms from the classical groups to GL(n).

The hope is that the talk will be expository, self contained, and understandable to a general mathematical audience.

**MINDEN ÉRDEKLŐDŐT SZERETETTEL VÁRUNK!**

Szilárd Ágnes
tudományos titkár