19.5.97 University of Crete

(1)

This talk announced with the title : Jac forms — must apologize — may not be clear the very end that I come to Jacobi forms — reason is, that Jac forms are important because of their interplay with other types of automorphic forms

So if in order to convince you, that Jac forms are interesting, I have to convince you that certain other types of automorphic forms are worthwhile to be considered

So question is — why automorphic forms?

One answer is this: you want to ~~consider~~ study an interesting arithmetic function $a(1), a(2), a(3), \ldots$ (in other words, a sequence, but I want to stress that arise from number theoretic considerations) — So you consider the generating function $\sum_{n\geq 1} a(n)\, q^n$ (say to begin with, as power series in q).

The id is known

Fact (by experience)

$\{a(n)\}$ interesting $\Rightarrow$ gen. fct. has very special properties

This phenomenon is not completely understood up to today, there exist conjectures (so called Langlands program) which make the above statement precise and must be formulated in terms of algebro-geometric and representation theoretic terms. Instead I give three examples of interesting arithmetic functions which lead via gen. functions to