Distinguished Lecturer Series

Sponsored by the Arthur and Rochelle Belfer Institute of Mathematics and Computer Science

Professor Pierre Deligne

Co-winner of the 2008 Wolf Prize in Mathematics
Institute for Advanced Study
Princeton

will speak on

Alternating Euler sums

Abstract

Given integers $s_i \geq 1$ and signs $\varepsilon_i = \pm 1$ ($1 \leq i \leq \ell$), the alternating Euler sum $\zeta(s_1, \ldots, s_\ell; \varepsilon_1, \ldots, \varepsilon_\ell)$ is

$$\sum \varepsilon_1^{n_1} \cdots \varepsilon_\ell^{n_\ell} / n_1^{s_1} \cdots n_\ell^{s_\ell}$$

(sum over $n_1 > \cdots > n_\ell > 0$). We know a lot, and ignore a lot, about the $\mathbb{Q}$-linear relations among such sums.

The lecture will take place in the Lecture Hall, Room 1, Ziskind Building on Sunday, June 1, 2008 at 11:00