The Mathematics Research Center Distinguished Lecturer Series

presents



Misha Gromov (NYU and IHÉS)

Thursday, November 10 4:30pm in 380-W

"Scalar curvature, convex polyhedra and differential operators"

Scalar curvature influences topology and asymptotic geometry of Riemannian manifolds, it is associated with the Einstein equation, it controls the Hamilton-Ricci flow. Yet, the geometric meaning of the scalar curvature remains obscure.

We shall explain in this lecture what can be seen of the scalar curvature from the perspective suggested by geometry and combinatorics of convex polyhedra.

Lecture 2:

Lecture 1:

Friday, November 11 12:00pm in 383-N

"The unknown unknown in the logic of the mind"

It would be laughable to compare anything in the modern physics with what was known to the ancient Egyptians 4000 years ago, but our ideas of the brain-mind relation has not changed much since the time of Imhotep of the 27th century BCE. The reason is, we believe, is that there is an "x" in the problem that belongs with mathematics rather than with psychology or physiology of the brain. We present an evidence in the favor of the existence of this "x" in our lecture.