1023-01-10 **Peter D. Lax***, New York University, Courant Institute, 251 Mercer St., New York, NY 10012,.

Mathematics and physics.

Mathematics and physics are different enterprises; physics is looking for the laws of nature, mathematics is trying to invent the structures and prove the theorems of mathematics. The two endeavors have nevertheless been always closely linked. In this lecture I will discuss a number of interesting instances where mathematics had come to the aid of physics, and examples where physics had suggested new problems and subjects to mathematics.

(Received May 03, 2006)