

Chao-Jiang Xu

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will speak on

Instability of the Cauchy-Kovalevskaya solution for a class of nonlinear systems

ABSTRACT:

We prove that in any smooth neighborhood of an analytic Cauchy datum, there exists a smooth function such that the corresponding initial value problem does not have any classical solution for a class of first-order non-linear systems. We use a method initiated by G. Métivier for elliptic systems based on the representation of solutions and on the FBI transform; in our case the system can be hyperbolic at initial time, but the characteristic roots leave the real line at positive times. The results of this talk were obtained in collaboration with N. Lerner and Y. Morimoto.

MONDAY, 14 APRIL 2008

LECTURE AT 4:00 PM

COFFEE, TEA, AND REFRESHMENTS FROM 3-5 PM

ROOM 617, WACHMAN BUILDING
DEPARTMENT OF MATHEMATICS