



McMaster University



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THE FIELDS INSTITUTE FOR RESEARCH IN MATHEMATICAL SCIENCES

GENERAL SEMINAR SERIES IN DYNAMICAL SYSTEMS

SPEAKER:

WILLEM SLUIS
The Fields Institute

On the Topic:

"Dynamic Feedback Linearization of Control Systems"

For non-linear control systems $\dot{x} = f(x,u)$ one may try to find out if a feedback transformation to a linear system $\dot{y} = Ay + Bv$ exists. The solution to this problem is well-known, and, as is to be expected, the generic control system is not feedback linearizable.

Dynamic feedback linearization was proposed to enlarge the collection of control systems that may be studied using linear techniques. In this talk, a new necessary condition for dynamic feedback linearization is presented from which it follows that this is also a non-generic property.

Thursday, March 11, 1993

1:30 pm, room 3018

at

The Fields Institute