PHYSICAL MATHEMATICS SEMINAR

FEEDBACK CONTROL OF PATTERN-FORMING SYSTEMS

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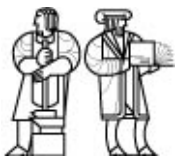
ABSTRACT:

A possibility of feedback control of various pattern forming systems described by several generic evolution equations is studied. Systems exhibiting the formation of stationary, spatially-regular patterns, as well as oscillatory wave patterns are considered. It is shown that applying a global feedback control one can suppress subcritical instability, produce spatially-localized patterns, change stability intervals between patterns with different symmetries, as well as achieve the formation of spatially-localized oscillatory patterns (oscillons).

TUESDAY, NOVEMBER 8, 2005
2:30 PM
Building 3, Room 370

Refreshments at 3:30 PM outside of Room 370



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