

THE EQUIVALENCE PROBLEM IN ANALYTIC DYNAMICS FOR 1-RESONANCE

Basil Nicolaenko Memorial Distinguished
Lecture Series in Nonlinear Studies

Christiane Rousseau

UNIVERSITY OF MONTREAL



THURSDAY, FEB. 28 @ 4:30PM

PHYSICAL SCIENCES - PSH 152

RECEPTION AT 3:45PM IN WCLR A206

When are two germs of analytic systems conjugate under an analytic change of coordinates in the neighborhood of a singular point? A way to answer is to use normal forms. But there are large classes of dynamical systems for which the change of coordinates to a normal form diverges. Why? In this talk, we will discuss the case of singularities for which the normalizing transformation is 1-summable, thus allowing to provide moduli spaces. We will explain the common geometric features of these singularities, and show that the study of their unfoldings allows understanding the singularities themselves and the geometric obstructions to convergence of the normalizing transformations. We will also present examples of moduli spaces for generic 1-parameter families unfolding such singularities.

ASU School of Mathematical
and Statistical Sciences
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This event is free and
open to the public.

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