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THE FIELDS INSTITUTE FOR RESEARCH IN MATHEMATICAL SCIENCES

GENERAL RESEARCH SEMINARS IN DYNAMICAL SYSTEMS

SPEAKER:

BERND KRAUSKOPF
University of Groningen

On the Topic:

"Bifurcation Series in the 1:4 Resonance Problem"

The problem of 1:4 resonance of a closed orbit of a vectorfield in $\mathbb{R}^3$ leads to the study of the $\mathbb{Z}_4$-equivariant planar vectorfield in complex notation

$$\dot{z} = \epsilon z + Az|z|^2 + \bar{z}^3.$$

After an introduction to the analysis of this equation due to V.I. Arnold, A.I. Neishtadt and F.S. Berezovskaia & A.I. Khibnik we will present the results of a computer study of the bifurcation sequences. Open questions and directions for further research will be discussed.

Wednesday, November 4, 1992 at 3:30pm, room 3018

at

The Fields Institute

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Supported by the **Ministry of Colleges and Universities of Ontario** and the **Natural Sciences and Engineering Research Council of Canada**