Mathematisches Institut der Universität Bayreuth

Der Geschäftsführende Vorstand
Prof. Dr. Jörg Rambau

Einladung

zum

Mathematischen Kolloquium

Am Donnerstag, dem 17. November 2022, spricht

Herr Dr. Bernhard Reinke,
CNRS IMJ-PRG
Sorbonne Université, France
Gast am Lehrstuhl Computeralgebra
bei Herrn Prof. Dr. Michael Stoll

über das Thema

The Weierstrass root-finder is not generally convergent

Abstract

We will give an overview of root-finding methods and their interpretation as complex dynamical systems. The main focus will be the Weierstrass/Durand-Kerner method and its similarities and differences to the Newton and the Ehrlich-Aberth methods.

In particular, we will show how to use methods from computer algebra to investigate (and/or establish) the existence of attracting periodic cycles, as well as diverging orbits, and present explicit examples of both phenomena for the Weierstrass method.

This talk is based on joint work with Dierk Schleicher and Michael Stoll.

Beginn: 16.30 Uhr (Kaffee/Tee ab 16.00 Uhr im Seminarraum 748)

Ort: Hörsaal H 19, Gebäude Naturwissenschaften II, Universitätsgelände

gez. J. Rambau