An die Mitglieder 25. April 2019
des Fachbereichs Mathematik und Statistik
- im Hause -

Vortragsankündigung

Sehr geehrte Damen und Herren,

gemäß den Bestimmungen der Promotionsordnung wird

Herr Lothar Sebastian Krapp (MMath)

am Donnerstag, dem 2. Mai 2019, 17.00 Uhr, F 426,

einen Vortrag über wesentliche Ergebnisse seiner Dissertation zum Thema

"Algebraic and Model Theoretic Properties
of O-minimal Exponential Fields"

halten.

Alle Interessenten sind herzlich eingeladen!

Der Fachbereichssprecher

gez. H. Freistühler

Abstract:

The main subject of my doctoral research project is the study of o-minimal exponential fields whose exponential satisfies the differential equation exp' = exp with initial condition exp'(0) = 1. In my presentation, I will firstly outline the motivation behind this project with particular focus on Tarski's Exponential Function Problem, which asks whether the theory of the ordered field of real numbers together with its standard exponential function is decidable. Secondly, I will mention my main results regarding integer parts and models of Peano Arithmetic, NIP almost real closed fields as well as definable henselian valuations and density in real closure. Finally, I will explain in more detail my work on value groups and residue fields of models of real exponentiation.

All model and valuation theoretic notions will be introduced.