

Berufungsvorträge "Mathematische Logik mit Berücksichtigung der Grundlagen der Informatik"

Die Berufungsvorträge schließen folgende Punkte mit ein:

Didaktischer Vortrag (25 Minuten) Fragen/Pause (10 Minuten) Wissenschaftlicher Vortrag (45 Minuten) Fragen/Pause (15 Minuten) Kommissionelles Hearing -(Dekanatsbesprechungszimmer, 11. Stock)

Dienstag, 16. Oktober 2018, Seminarraum 11

Dr. Vera Fischer (Universität Wien)

9:00 Uhr: Didaktischer Vortrag

"Computable partial functions"

The class of general recursive functions is defined as the smallest class of partial functions $f: \mathbb{N}^k \to \mathbb{N}$ where $k \in \mathbb{N}$, which contains the constant zero functions, the successor function, the projection functions, and which is closed under composition, primitive recursion and the μ -operator. A simple model of a computing machine is a register machine, an idealized version of present day computers. Not only is every general recursive function computable by a register machine, but also every register machine computable functions is general recursive. This fact is evidence towards the Church-Turing thesis, which states that any formalization of the informal notion of "effective calculability" leads to the very same class of functions: the computable partial functions.

9:35 Uhr: Wissenschaftlicher Vortrag

"On some set-theoretic aspects of the real line"

The notion of a cardinal characteristic of the continuum emerged with the development of analysis in the late 19th century. The associated study of the infinitary combinatorial properties of the real line reveals many unexpected connections between its measure theoretic, algebraic and topological properties. Additionally it brings light to problems which are central to the foundations of mathematics and its axiomatization. In this talk, we will discuss some of the central ideas underlying the subject of cardinal characteristics of the real line and point out some interesting open problems in the area.