universität wien FAKULTÄT FÜR MATHEMATIK
Dekan Univ.-Prof. Dr. Christian Krattenthaler

Einladung zur öffentlichen Defensio von
Konrad Schrempf, Dipl.-Ing.
Thema der Dissertation:
Free Fractions: On the construction of Minimal Linear Representations of Elements in the Free Field (of Free Associative Algebras)

Abstract:
Free fractions are a far reaching generalization of "classical" fractions (we learn at school) and enable the systematic manipulation (simplification, factorization, etc.) of non-commutative rational expressions which are ubiquitous when we work symbolically with matrices. After a motivation with plenty of applications I will briefly show how to work with free fractions, that is, how to *add*, *multiply* and *invert* (non-zero) elements in the *universal field of fractions* of *free associative algebras*, and present selected results of my thesis, in particular the new characterization of minimality of *linear representations* in "standard form".

Prüfungssenat:

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