

# SALZBURG MATHEMATICS COLLOQUIUM

Summer 2018

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## „Analysis of sequences using transducer automata theory“

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### Abstract:

This talk focusses on sequences which can be generated by transducer automata. Such sequences frequently occur in the context of digit problems, for instance in the design of efficient scalar multiplication algorithms used in elliptic curve cryptography. Existence and optimality questions can be decided by connectivity properties of the graphs underlying the corresponding transducers and precise asymptotic results can be obtained. Generalisations to regular sequences are also given.

Thursday, **15:00-15:45**  
Hörsaal 414, 1. Stock