



Leibniz  
Universität  
Hannover

## Gemeinsames Oberseminar

der Institute für Algebraische Geometrie und für  
Algebra, Zahlentheorie und Diskrete Mathematik

**Danylo Radchenko**

(Laboratoire Paul Painlevé, University of Lille)

### Multiple polylogarithms and the Steinberg module

I will talk about a surprising connection between the Steinberg module of rationals and a certain space of multiple polylogarithms on tori. This has several applications to Goncharov's program, in particular, it can be used to prove that all multiple polylogarithms of given depth and weight can be expressed via a single function. If time permits I will also discuss how the story relates to stability questions for cohomology of  $GL_n(\mathbb{Z})$ . The talk is based on a joint work in progress with Steven Charlton and Daniil Rudenko.

**Donnerstag, 24.10.2024, 16:30 - 17:30, B302.**

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**Alle Interessierten sind herzlich eingeladen.**