

Multiple polylogarithms and the Steinberg module

Danylo RADCHENKO (University of Lille, France)

Abstract: I will talk about a surprising connection between the Steinberg module of rationals and a certain space of multiple polylogarithms on a torus. I will describe some applications of this relation to the Goncharov program. In particular, I will show how this relation can be used to prove that all multiple polylogarithms of given depth and weight can be expressed via a single function. The talk is based on a joint work in progress with Steven Charlton and Daniil Rudenko.