Contribution ID: **19**   Type: **not specified**

Goncharov's conjecture and higher Chow group

Thursday 12 June 2025 17:00 (50 minutes)

I will talk about my recent result (arXiv:2404.06271) which states that for any n, the cohomology of poly-logarithmic complex in degree (n-1) and weight n is isomorphic to the appropriate graded piece of algebraic K-theory. This gives a new case of Goncharov's conjecture stating that graded pieces of algebraic K-theory should be isomorphic to the cohomology of the polylogarithmic complex.

Algebraic K-theory can be computed as Bloch's higher Chow group. Elements in the polylogarithmic complex correspond to some explicit algebraic cycles. I will define some explicit map from higher Chow groups to the cohomology of the polylogarithmic complex. The definition of this map was motivated by the analytical properties of so-called Chow dilogarithm which was studied by A. Goncharov.

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