

**Modular varieties and
L-functions : in memoriam
Jan Nekovář**

**Rapport sur les
contributions**

ID de Contribution: 2

Type: **Non spécifié**

Anthony J. Scholl, The plectic abelian polylogarithm

jeudi 28 mars 2024 10:00 (1 heure)

Abstract: I will discuss my joint work with Jan Nekovar, in which we constructed a refinement of the abelian Hodge-theoretic polylogarithm of Wildeshaus and Levin, and possible arithmetic applications.

ID de Contribution: 4

Type: **Non spécifié**

Daniel Kriz, Motivic spaces and spectra and the plectic conjecture

jeudi 28 mars 2024 11:30 (1 heure)

Abstract. We formulate a motivic homotopy version of the plectic conjecture of Jan Nekovář and Tony Scholl by constructing a category of r -plectic motivic spaces and spectra, using the theory of Morel and Voevodsky. We show that this category satisfies the basic properties conjectured by Nekovář-Scholl in the case of pure Shimura data. This is joint work with Po Hu, Igor Kriz and Petr Somberg.

ID de Contribution: 5

Type: **Non spécifié**

David Burns, On recent advances in the theory of Euler systems

jeudi 28 mars 2024 14:30 (1 heure)

Abstract: We discuss work-in-progress with Dominik Bullach concerning the abstract theory of Euler and Kolyvagin systems for p -adic representations. We explain the motivation for work in this direction, the consequences of our current results for the study of special value conjectures and the key role played in their proofs by a foundational principle championed by Jan.

ID de Contribution: 6

Type: **Non spécifié**

Kazim Büyükboduk, Chow–Heegner points and Artin formalism for triple product p-adic L-functions

jeudi 28 mars 2024 16:00 (1 heure)

Abstract: I will discuss the factorization of a certain triple product p-adic L-function whose interpolation range is empty. The relevant factorization statement reflects the Artin formalism for the underlying family of motives (that decompose as the sum of 2 motives of respective degrees 2 and 6). I will explain how this can be recast in terms of the interplay between cycles that are governed by the Gross–Zagier and (conjectural) Gross–Kudla–Schoen formulae for the relevant complex L-series.

The statement of this conjecture was conceived through calculations with Jan’s interpretation of algebraic p-adic L-functions (as determinants of Selmer complexes). One unconditional evidence towards this conjecture is the verification of its algebraic counterpart that is formulated in terms of these.

ID de Contribution: 7

Type: **Non spécifié**

Christophe Cornut, Champs immobiliers

vendredi 29 mars 2024 10:00 (1 heure)

Résumé. Une proposition de géométrisation champêtre des immeubles de Bruhat-Tits.

ID de Contribution: 8

Type: **Non spécifié**

Matteo Tamiozzo, Bipartite Kolyvagin systems and the structure of Selmer groups

vendredi 29 mars 2024 11:30 (1 heure)

Abstract. Bipartite Kolyvagin systems are incarnations of Jochnowitz congruences between special values of L-functions of congruent automorphic forms. In the case of Hilbert modular forms of parallel weight two, I will describe the connection between the p-parity conjecture and the non-triviality of such systems, and illustrate how they can be used to construct bases of Selmer groups modulo p. In the remaining time, I will discuss how the search for “higher Jochnowitz congruences” is related to the plectic conjectures.