

Fitting Invariants of some Modules in Non-commutative Iwasawa Theory

Wednesday, July 23, 2025 12:00 PM (30 minutes)

The (zeroth) Fitting ideal of a finitely presented torsion module over a commutative ring is contained in the annihilator of the module, but is generally easier to calculate than the latter. Nickel, Johnston and Kataoka generalised the concept of Fitting invariants to certain non-commutative rings. Kataoka's theory of shifts of Fitting invariants gives rise to a generalisation of the MacRae invariant which is compatible with the relative K -theory of the algebra. We consider Iwasawa algebras of one-dimensional admissible p -adic Lie extensions of number fields and prove localisation formulas for the two invariants mentioned above. Finally, we use this theory to calculate the Fitting invariants of certain Iwasawa modules, locally in a large number of cases and globally for special ones. This is work in progress.

Motivation for Participation

Application for a talk

E-Mail

Special requests and comments

Academic Status

Financial Support

Institution (University)

Topic of your talk

Comments and Suggestions on the Community Agreement

Nationality

Country of Institution

Preferred Name

Gender

Preferred Pronouns

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