

KATZ p -ADIC MODULAR FORMS

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講演要旨

私の講演では, Katz により定式化された p -adic modular form の理論を, 有理数体 $\mathbb{Q}$ 上の場合には主に Gouvêa [3] を, 総実代数体上の場合には主に Goren [2] をそれぞれ参考にして紹介させていただく. ちなみに, 原論文としては Katz の一連の論文 [5], [6], [7], [8], [9], [10] そして [11] が挙げられる.

まだ準備段階ではあるが,

Contents (仮)

Chapter 1 Katz p -adic elliptic modular forms

1.1 Classical modular forms

1.2 Overconvergent modular forms

Chapter 2 Katz p -adic Hilbert modular forms

2.1 Classical modular forms

2.2 Overconvergent modular forms

という流れでお話できればと考えている.

Chapter 1 では, $\mathbb{Q}$ 上の Katz p -adic modular form について, 主に [3] を参考に概説する.

まず Section 1.1 で, p -adic ring 上の classical modular form の幾何的定式化を行い, Section 1.2 において, [3, Section I.2] に沿って overconvergent modular form を定義して, classical modular form とどのような点が違うのか説明したい. さらに Serre [12] による p -adic modular form との関係について紹介する.

Chapter 2 では, 総実代数体上の Katz p -adic modular form について, 主に [2] を参考に概説したい.

Section 2.1 では, [2, Section 5.1] を参考に classical modular form の幾何的定式化をして, Section 2.2 で [2, Section 5.6] に沿って overconvergent modular form を定義し, classical modular form との関係や Serre 流の p -adic modular form との関連について紹介したい.

$\mathbb{Q}$ 上から総実代数体上へと modular form の定式化を一般化する際に生じる問題点をしっかり押さえる形で概説できればと考えている.

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