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Explicit Reciprocity Law for Lubin-Tate Formal Groups

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摘要 In this article, using Fontaine's $\Phi\Gamma$ -module theory, we give a new proof of Coleman's explicit reciprocity law, which generalizes that of Artin--Hasse, Iwasawa and Wiles, by giving a complete formula for the norm residue symbol on Lubin--Tate groups. The method used here is different from the classical ones and can be used to study the Iwasawa theory of crystalline representations.

关键词 [\$\Phi\Gamma\$ -module](#) [Formal groups](#) [explicit reciprocity law](#) [Kummer map](#)

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Abstract In this article, using Fontaine's $\Phi\Gamma$ -module theory, we give a new proof of Coleman's explicit reciprocity law, which generalizes that of Artin--Hasse, Iwasawa and Wiles, by giving a complete formula for the norm residue symbol on Lubin--Tate groups. The method used here is different from the classical ones and can be used to study the Iwasawa theory of crystalline representations.

Key words [\$\Phi\Gamma\$ -module](#) [Formal groups](#) [explicit reciprocity law](#) [Kummer map](#)

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