

Arf symbols and the absolute Galois group of a local field

Buse Firat

Abstract

Using Arf's approach ([1]), which gives a description of the separable closure $\mathbb{F}_q((t))^{\text{sep}}$ of the field of formal Laurent series $\mathbb{F}_q((t))$ over \mathbb{F}_q and of the absolute Galois group $V_{\mathbb{F}_q((t))}$ of the maximal tamely ramified closure $\mathbb{F}_q((t))^{\text{tr}}$ of $\mathbb{F}_q((t))$ in terms of certain symbols called Arf symbols in this talk, together with Fontaine-Wintenberger theory of fields of norms ([4, 5]), we give a description of the absolute Galois group G_K of any local field K via non-abelian topological group extensions.

References

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