
André's flatness lemma and applications

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Abstract

A key innovation in André's solution of the direct summand conjecture was a certain flatness lemma for perfectoid rings. In this talk, I will recall this lemma and its relevance for commutative algebra. I will then explain how the lemma surprisingly also provided the essential ingredient in the proof of the odd vanishing theorem in the algebraic K -theory of p -adically complete rings. Joint work with Peter Scholze.

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