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De Rham and p -adic étale cohomology [after G. Faltings, J.-M. Fontaine and others].
(Cohomologie de de Rham et cohomologie étale p -adique [d'après G. Faltings, J.-M. Fontaine et al.]) (French) [Zbl 0736.14005](#)

Sémin. Bourbaki, Vol. 1989/90, 42ème année, Astérisque 189-190, Exp. No. 726, 325-374 (1990).

[For the entire collection see [Zbl 0722.00001](#).]

Let X be a proper and smooth scheme over a local field K with residue field of characteristic p . This exposé is concerned with the “isomorphism” of p -adic periods between the De Rham cohomology of X/K and the p -adic étale cohomology of $X_{\overline{K}}$ with values in \mathbb{Q}_p , considered as a Galois module (the “mysterious functor”). The theory includes the Hodge-Tate conjecture, as well as several other now established conjectures.

Reviewer: [J.H.de Boer \(Nijmegen\)](#)

MSC:

- [14F30](#) p -adic cohomology, crystalline cohomology
- [14F40](#) de Rham cohomology and algebraic geometry
- [32G20](#) Period matrices, variation of Hodge structure; degenerations

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| Cited in 1 Review Cited in 13 Documents |
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Keywords:

[De Rham cohomology](#); [p-adic étale cohomology](#); [Hodge-Tate conjecture](#); [p- adic periods](#)

Full Text: [Numdam](#) [EuDML](#)