

On the structure of affine flat group schemes over discrete valuation rings, I

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Abstract. We study affine group schemes over a discrete valuation ring R using two techniques: Neron blowups and Tannakian categories. We employ the theory developed to define and study differential Galois groups of \mathcal{D} -modules on a scheme over a R . This throws light on how differential Galois groups of families degenerate.

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