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Swan conductors and torsion in the logarithmic de Rham complex

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<u>Abstract:</u> We prove, for an arithmetic scheme X/S over a discrete valuation ring whose special fiber is a strict normal crossings divisor in X, that the Swan conductor of X/S is equal to the Euler characteristic of the torsion in the logarithmic de Rham complex of X/S. This is a precise logarithmic analog of a theorem by Bloch [1].



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