



Leray spectral sequence for an affine morphism

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Let $f : X \rightarrow Y$ be an affine morphism of schemes (that is, every point has an affine neighborhood whose preimage is affine). Then $R^i f_* = 0$ for every $i > 0$, and the Leray spectral sequence tells us that

$$H^i(X, \mathcal{F}) = H^i(Y, f_* \mathcal{F}).$$