



De Rham-Weil theorem

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Let \mathcal{F} be a sheaf on a topological space X and \mathcal{F}^\bullet a <http://planetmath.org/ResolutionOfASheaf> resolution of \mathcal{F} by <http://planetmath.org/AcyclicSheaf> acyclic sheaves. Then

$$H^q(X, \mathcal{F}) \simeq H^q(\mathcal{F}^\bullet(X)),$$

where $H^q(X, \mathcal{F})$ denotes the q -th sheaf cohomology group of X with coefficients in \mathcal{F} .