$\mathrm{Hom}_R(R, M) \cong M \cong R^* \otimes_R M.$

This is clear, since for $\mathcal{E}$ locally free, $\underline{\mathrm{Ext}}^q_{\mathcal{O}}(\mathcal{E}, \mathcal{G}) = 0$ for $q > 0$ and $\underline{\mathrm{Ext}}^0_{\mathcal{O}}(\mathcal{E}, \mathcal{G}) \cong \mathrm{Hom}_{\mathcal{O}}(\mathcal{E}, \mathcal{G}) \cong \mathcal{E}^* \otimes_{\mathcal{O}} \mathcal{G}$.

$\underline{\mathrm{Ext}}^q_{\mathcal{O}}(\mathcal{E}, \mathcal{G})_x \cong \mathrm{Ext}^q_{\mathcal{O}}(\mathcal{E}_x, \mathcal{G}_x) = 0$ since $\mathcal{E}_x \cong \mathcal{O}$, by 686.

$\Rightarrow \ {}'E_2^{p,q} = 0$ for $q > 0$ and ${}'E_2^{p,0} = H^p(M, \mathcal{E}^* \otimes \mathcal{G})$.

$${}'E_\infty^{p,q} = 0 \text{ for } q > 0. \quad \underset{\overset{\parallel}{0}}{E_2^{p-2,1}} \longrightarrow {}'E_2^{p,0} \longrightarrow \underset{\overset{\parallel}{0}}{{}'E_2^{p+2,0-2+1}}. \Rightarrow {}'E_3^{p,0} = {}'E_2^{p,0}$$

$$\Rightarrow {}'E_\infty^{p,0} = \cdots = {}'E_2^{p,0} = H^p(M, \mathcal{E}^* \otimes \mathcal{G}) = \mathrm{Ext}^p_{\mathcal{O}}(M; \mathcal{E}, \mathcal{G})$$

The second property is: Suppose $\underline{\mathrm{Ext}}^q_{\mathcal{O}}(\mathcal{F}, \mathcal{G}) = 0$ for $0 \le q < k$. Then

$$\mathrm{Ext}^k(M; \mathcal{F}, \mathcal{G}) \cong H^0(M, \underline{\mathrm{Ext}}^k_{\mathcal{O}}(\mathcal{F}, \mathcal{G})).$$

Proof. The E_2 term of the spectral sequence has only zeros below the horizontal line passing through $(0, k)$, and this gives the result. Q. E. D.

$$\mathbb{H}^k(M, D) = \mathrm{Ext}^k(M; \mathcal{F}, \mathcal{G}) = {}'E_\infty^{0,k} \oplus {}'E_\infty^{1,k-1} \oplus \cdots \oplus {}'E_\infty^{k,0}$$

For $k > q \ge 0$ $\quad {}'E_2^{p,q} = H^p(M, \underline{\mathrm{Ext}}^q_{\mathcal{O}}(\mathcal{F}, \mathcal{G})) = 0 = \cdots = {}'E_\infty^{p,q}$ $\quad p + q = k$

For $q = k$, $\quad {}'E_2^{0,k} = H^0(M, \underline{\mathrm{Ext}}^k_{\mathcal{O}}(\mathcal{F}, \mathcal{G}))$

$$\underset{\overset{\parallel}{0}}{{}'E_2^{-2,*}} \longrightarrow {}'E_2^{0,k} \longrightarrow {}'E_2^{2,k-1} = H^p(M, 0) = 0. \Rightarrow {}'E_3^{0,k} = {}'E_2^{0,k} =$$

$$= \cdots = {}'E_\infty^{0,k} \Rightarrow \mathrm{Ext}^k(M; \mathcal{F}, \mathcal{G}) = {}'E_\infty^{0,k} = H^0(M, \underline{\mathrm{Ext}}^k_{\mathcal{O}}(\mathcal{F}, \mathcal{G})).$$