

$${}''E_0^{p,q} \cong C^q(\underline{U}, K^p) \xrightarrow{\delta} {}''E_0^{p,q+1} \cong C^{q+1}(\underline{U}, K^p)$$

$$\Rightarrow {}''E_1^{p,q}(\underline{U}) = H^q(\underline{U}, K^p)$$

$$\Rightarrow {}''E_1^{p,q}(\underline{U}) \xrightarrow{d} {}''E_1^{p+1,q}$$

$$\parallel \qquad \qquad \parallel$$

$$H^q(\underline{U}, K^p) \qquad \qquad H^q(\underline{U}, K^{p+1})$$

$$\Rightarrow {}''E_2^{p,q}(\underline{U}) = \frac{\ker d}{\operatorname{im} d}, \text{ where}$$

$$\xrightarrow{d} H^q(\underline{U}, K^p) \xrightarrow{d} H^q(\underline{U}, K^{p+1}) \xrightarrow{d}$$

As in the proof above, we can show

$${}''E_2^{p,q} = \lim_{\underline{U}} {}''E_2^{p,q}(\underline{U}) = \lim_{\underline{U}} \frac{\ker d}{\operatorname{im} d}$$

$$= H_d^q(H^*(X, K^*)) = \frac{\ker d}{\operatorname{im} d}, \text{ where}$$

$$\xrightarrow{d} H^q(X, K^p) \xrightarrow{d} H^q(X, K^{p+1}) \xrightarrow{\qquad} {}''E_2^{p,q}(\underline{U})$$

$$0 \rightarrow \operatorname{im} d(\underline{U}) \rightarrow \ker d(\underline{U}) \rightarrow H_d(H(\underline{U}, K^*)) \rightarrow 0$$

$$\downarrow \quad \quad \downarrow \quad \quad \downarrow$$

$$0 \rightarrow \operatorname{im} d(\underline{U}') \rightarrow \ker d(\underline{U}') \rightarrow H_d(H(\underline{U}', K^*)) \rightarrow 0$$

$$\downarrow \quad \quad \downarrow \quad \quad \downarrow$$

$$\vdots \quad \quad \vdots \quad \quad \vdots$$

$$0 \rightarrow \operatorname{im} d \rightarrow \ker d \rightarrow H_d(H^*(X, K^*)) \rightarrow 0$$

Refer to p40.

${}''E_2^{p,q}$

\Rightarrow