

$$\dots \longrightarrow H^q(U \cup V) \xrightarrow{\text{res}} H^q(U) \oplus H^q(V) \xrightarrow{-} H^q(U \cap V) \xrightarrow{d^*} H^{q+1}(U \cup V) \longrightarrow \dots$$

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$$\dots \longleftarrow H_c^{n-q}(U \cup V) \xleftarrow{+} H_c^{n-q}(U) \oplus H_c^{n-q}(V) \longleftarrow H_c^{n-q}(U \cap V) \xleftarrow{d^*} H_c^{n-q-1}(U \cup V) \longleftarrow \dots$$

$$\begin{array}{c} \downarrow \int \\ U \cup V \\ \mathbb{R} \end{array}$$

$$\begin{array}{c} \downarrow \int + \int \\ U \quad V \\ \mathbb{R} \end{array}$$

$$\begin{array}{c} \downarrow \int \\ U \cap V \\ \mathbb{R} \end{array}$$

$$\begin{array}{c} \downarrow \int \\ U \cup V \\ \mathbb{R} \end{array}$$