among $\{i_1, \cdots i_k\}$ and put them 1).

$$\mathcal{A}^q(*D)(U) = \bigcup_{x\in U} A^q(U-U\cap D)_x$$

$$\mathcal{H}^q(\mathcal{A}^*(*D))_p$$

$$\begin{tikzcd}
= \lim\limits_{U\ni p} \dfrac{\ker\{d : \mathcal{A}^q(*D)(U) \longrightarrow \mathcal{A}^{q+1}(*D)(U)\}}{d\,\mathcal{A}^{q-1}(*D)(U)} \arrow[d] & \ni \sigma + d\,\mathcal{A}^{q-1}(*D)(U) \arrow[d, "\phi"] \\
H^q(X^k S^1; \mathbb{C}) = \lim\limits_{U\ni p} H^q_{DR}(U-U\cap D) & \ni \sigma' + d\,A^{q-1}(U'-U'\cap D)
\end{tikzcd}$$

$\sigma \in \mathcal{A}^q(*D)(U) \Rightarrow \sigma(y) = \sigma'_y$, $\sigma' \in A^q(U'-U'\cap D)$ s.t $d\sigma' = 0$.
germ of σ'

$U' \subset U$ and $U' \cong \{|z_i|<1\}$.

Clearly ϕ is onto. Suppose $\phi(\sigma + d\,\mathcal{A}^{q-1}(*D)(U)) = 0 \Rightarrow \sigma' = d\tau$, $\tau \in A^{q-1}(U'-U'\cap D)$.
$\Rightarrow$ Let $\sigma'' \in \mathcal{A}^q(*D)(U')$ s.t $\sigma''(z) = \sigma'(z) \Rightarrow d\tau' = \sigma''$ where $\tau' \in \mathcal{A}^{q-1}(*D)(U')$ $\tau'(z) = \tau_z$. $\Rightarrow \phi$ is iso.

Since the cohomology of $U^* = U - U\cap D$ has as basis the forms

$$\frac{dz_J}{z_J} \quad (J \subset I),$$

the stalks $\mathcal{H}^q(\Omega^*(\log D))_p$ and $\mathcal{H}^q(\Omega^*(*D))_p$ both map onto $\mathcal{H}^q(\mathcal{A}^*(*D))_p$.