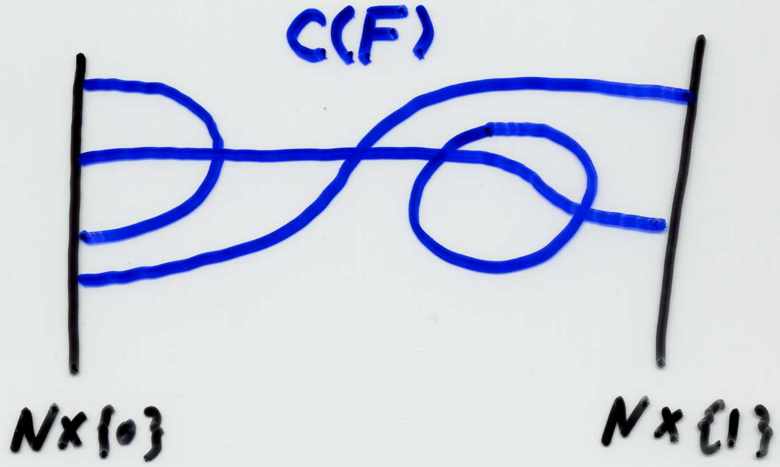
(proof)

$^\forall[c] \in H^k(\tau(n+1, p+1), \rho_{n+1,p+1})$

$\bar{c} := S_k^*(c) \in C^k(\tau(n,p), \rho_{n,p})$

$\Rightarrow \partial c(F) = \bar{c}(f_1)\times\{1\} - \bar{c}(f_0)\times\{0\}$



c : cocycle

$\Rightarrow [\bar{c}(f_0)] = [\bar{c}(f_1)]$ in $H^c_{p-k}(N; \mathbb{Z}_2)$

$\therefore \varphi_{f_0}(S_k^*[c]) = \varphi_{f_1}(S_k^*[c])$

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