

Corrections

1. (Communicated by Kannappan Sampath on February 25, 2020) On p. 33, the first isomorphism in Step 4 should read

$$\begin{aligned}
 H^1(X, \mathcal{O}_X(-\tilde{D})) &\simeq H^1(\mathbf{P}(E), \pi_* \mathcal{O}_X(-\tilde{D})) \\
 &\simeq H^1\left(\mathbf{P}(E), \mathcal{O}_{\mathbf{P}(E)}\left(-F - f^*\left(\frac{h(ph-3)}{r} \cdot \infty\right)\right)\right. \\
 &\quad \left.\oplus \bigoplus_{i=1}^{r-1} \mathcal{O}_{\mathbf{P}(E)}\left(-iM - f^*\left(\frac{h(ph-3)}{r} \cdot \infty\right)\right)\right).
 \end{aligned}$$

This correction affects the subsequent calculations as follows. The Leray spectral sequence (2.16) should then read

$$\begin{aligned}
 E_2^{p,q} &= H^p\left(C, R^q f_*\left(\mathcal{O}_{\mathbf{P}(E)}\left(-F - f^*\left(\frac{h(ph-3)}{r} \cdot \infty\right)\right)\right.\right. \\
 &\quad \left.\left.\oplus \bigoplus_{i=1}^{r-1} \mathcal{O}_{\mathbf{P}(E)}\left(-iM - f^*\left(\frac{h(ph-3)}{r} \cdot \infty\right)\right)\right)\right) \\
 &\Rightarrow H^{p+q}\left(\mathbf{P}(E), \mathcal{O}_{\mathbf{P}(E)}\left(-F - f^*\left(\frac{h(ph-3)}{r} \cdot \infty\right)\right)\right. \\
 &\quad \left.\oplus \bigoplus_{i=1}^{r-1} \mathcal{O}_{\mathbf{P}(E)}\left(-iM - f^*\left(\frac{h(ph-3)}{r} \cdot \infty\right)\right)\right) \tag{2.16*}
 \end{aligned}$$

and then (2.17) should read

$$\begin{aligned}
H^1(X, \mathcal{O}_X(-\tilde{D})) \\
\simeq H^0\left(C, R^1 f_* \left(\mathcal{O}_{\mathbf{P}(E)} \left(-F - f^* \left(\frac{h(ph-3)}{r} \cdot \infty \right) \right) \right. \right. \\
\left. \left. \oplus \bigoplus_{i=1}^{r-1} \mathcal{O}_{\mathbf{P}(E)} \left(-iM - f^* \left(\frac{h(ph-3)}{r} \cdot \infty \right) \right) \right) \right) \quad (2.17^*)
\end{aligned}$$

Now to get non-vanishing of the right-hand side of (2.17*), one twists the injection at the bottom of p. 34 by $-\frac{h(ph-3)}{r} \cdot \infty$, in which case the injection at the top of p. 35 now reads

$$\begin{aligned}
H^0\left(C, \mathcal{O}_C \left(\frac{(2r-i-1)h(ph-3)}{r} \cdot \infty \right) \right) \\
\hookrightarrow H^0\left(C, R^1 f_* \left(\mathcal{O}_{\mathbf{P}(E)} \left(-iM - f^* \left(\frac{h(ph-3)}{r} \cdot \infty \right) \right) \right) \right),
\end{aligned}$$

where we note the denominator on the left-hand side has also been corrected from “2” to “ r .” The left-hand side is nonzero as long as $2r - i - 1 \geq 0$. By the assumption $r \geq 2$, the left-hand side is nonzero for $i = 1$, hence (2.17*) implies $H^1(X, \mathcal{O}_X(-\tilde{D})) \neq 0$.