

2. Any two effective divisors D and D' intersecting in isolated points intersect positively; thus $D \cdot D' \geq 0$ unless D and D' have a component in common.

⌈ See P 62 ~ P 63. ⌋

In particular, if D is irreducible, then any effective divisor D' not containing D intersects D positively, and if in addition, $D \cdot D \geq 0$, then $D \cdot D' \geq 0$ for any effective divisor D' .

⌈ For any effective divisor D' , D' contains D or not.

(i) $D' \supset D$

$$\Rightarrow D' = kD + D'', \quad D'' \not\supset D.$$

$$\Rightarrow D \cdot D' = k D \cdot D + D'' \cdot D \geq 0$$

(ii) $D' \not\supset D$

$D' \cdot D \geq 0$ since "in particular" means that D and D' intersect in isolated points. ⌋

3. In a somewhat deeper vein, recall that by the Hodge - Riemann bilinear relations the intersection form is negative definite on the primitive cohomology $P^{h,1}(M) \subset H^{h,1}(M)$.

⌈ By P 123, $Q : H^{n-k}(M) \otimes H^{n-k}(M) \longrightarrow \mathbb{C}$

for $\xi \in P^{p,q}(M)$,

$$(\sqrt{-1})^{p-q} (-1)^{(n-k)(n-k-1)/2} Q(\xi, \bar{\xi}) > 0.$$