

Nonvanishing conjecture reading seminars

Spring 2024

Lecture 4 — 06, 06, 2024 (draft version)

Yi Li

1 Overview

2 The fiber of the Moishezon morphism is again Moishezon

Theorem 1 (The fiber of the Moishezon morphism is again Moishezon, see [?], Corollary 16).

Remark 2. [?]

Proof.

□

$$\begin{array}{ccccccc}
 & & & & H^0(\mathcal{X}, R^2\pi_*\mathcal{O}_{\mathcal{X}}) & & \\
 & & & & \downarrow \cong & & \\
 \longrightarrow & H^1(\mathcal{X}, \mathcal{O}_{\mathcal{X}}^*) & \longrightarrow & H^2(\mathcal{X}, \mathbb{Z}) & \longrightarrow & H^2(\mathcal{X}, \mathcal{O}_{\mathcal{X}}) & \longrightarrow \\
 & \downarrow & & \downarrow & & \downarrow & \\
 \longrightarrow & H^1(X_s, \mathcal{O}_{X_s}^*) & \longrightarrow & H^2(X_s, \mathbb{Z}) & \longrightarrow & H^2(X_s, \mathcal{O}_{X_s}) & \longrightarrow \\
 & & & & & \downarrow \cong & \\
 & & & & & R^2\pi_*\mathcal{O}_{\mathcal{X}}(s) &
 \end{array}$$

In [?].

References