# Corrigendum to "Analytic and rational sections of relative semi-abelian varieties, P.A.M.Q. Vol. 18, no. 1, 177–209, 2022"

P. Corvaja, J. Noguchi and U. Zannier

August 2026

A mistake in the above titled paper has been detected by Ya Deng, whom we thank for informing us.

In the sequel, we keep the notation and the numeration of the paper.

The problem concerns section 4.1, starting from equation (4.1), where we state that the (log)-cotangent bundle to a family of (semi)-abelian abelian variety can be holomorphically trivialized. Actually, our argument only provides a trivialization of the *relative* cotangent bundle.

As a consequence, Theorem 4.20 (the Second Main Theorem) and what depends on it cannot be considered as proved.

We withdraw the following contents:

(i) §§4.1, 4.2, 4.4, 4.5.
(ii) §5.
(iii) §§6.1 (b), 6.2.

One of the ingredients in the proof of Theorem 4.20 is the "lemma on logarithmic derivatives", which we presented as Lemma 4.15 in §4.3, which should be restated in a more restricted form at this stage as follows:

**Lemma 4.15** (Lemma on differentials; [12], [13], [18] (3.2.8))**.** *Let the notation be as in §4. Let $\omega$ be a real semi-positive $(1,1)$-form on $\bar{\mathscr{A}}$, and let $f : \Delta^* \to \bar{\mathscr{A}}$ be a holomorphic section. Then, setting $f^*\omega = \xi(t)\frac{i}{2}dt \wedge d\bar{t}$, we have*

$$\int_{\Gamma(r)} \log^+ \xi \, \frac{d\theta}{2\pi} = S_f(r;\omega_0), \quad r > r_0,$$

*where $S_f(r;\omega_0) = O(\log^+ T_f(r;\omega_0)) + O(\log r)||$.*