Erratum

SMOOTH FAMILIES OVER RATIONAL AND ELLIPTIC CURVES

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There is a hypothesis missing from the statement of (3.3) without that the presented proof is incomplete. The missing assumption is that if $\dim Y \geq 5$, then $\omega_{Y/\mathbb{P}^1}$ restricted to any fibre is required to be ample. The correct statement is as follows:

Theorem. *Let Y be a projective variety of odd dimension and $g : Y \to \mathbb{P}^1$ a morphism with connected fibres having at worst ordinary double point singularities. Assume that $\omega_{Y/\mathbb{P}^1}$ restricted to any fibre is nef and big and if $\dim Y \geq 5$, then $\omega_{Y/\mathbb{P}^1}$ restricted to any fibre is ample. If g is not smooth, then it has at least 5 singular fibres.*

The presented proof works unchanged with the additional remark, that the isotriviality of f_E implies the isotriviality of g_E by the extra assumption.

On the other hand this extra assumption is expected to be superfluous as [Kollár-Mori92, 12.7.3] is conjectured to be true in all dimensions, thus (expected to be) providing the missing step to the originally stated form, i.e., proving that the isotriviality of f_E implies the isotriviality of g_E.

Finally note that (3.3) is not used elsewhere in the article, so the rest, including the main results, holds true unchanged.

References

[Kollár-Mori92] J. Kollár, S. Mori, *Classification of three-dimensional flips*, Jour. AMS **5** (1992), 533–703.

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