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Erratum to

TWO EXTREMAL ELLIPTIC FIBRATIONS ON JACOBIAN KUMMER SURFACES

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In the first part of the previous paper [K1] it was erroneously claimed that a generic Jacobian Kummer surface admits an irreducible elliptic fibration. The five equivalent conditions (i) - (v) of Lemma 1 do imply the condition (vi), but the converse is not true in general. Consequently Proposition 1 was wrong and we have the following couterexample:

Let $X = Km(E \times E')$, the Kummer surface of a product of two non-isogenous elliptic curves E, E'. It can be shown that $Pic(X) \cong U \oplus D_8 \oplus D_8$, where U is the hyperbolic lattice generated by e, f with $e^2 = f^2 = 0, ef = 1$. The vectors $v_0 = e + f$, $v_1 = e - f$, and the vectors obtained from the standard basis elements of $2D_8$ by Gram-Schmidt orthogonalization do form an orthogonal $\mathbb{Q}$-basis of $Pic(X) \otimes \mathbb{Q}$, and the corresponding real quadratic hypersurface $Q : v_0^2 + v_1^2x_1^2 + ... = 0$ has a rational point, e.g. $(1, 0, ..., 0)$, and hence has infinitely many rational points which form a dense subset. Since X is Kummer, $Aut(X)$ is infinite. Finally, it can be shown [K2, Example 5] that X does not admit an irreducible elliptic fibration.

Now Theorem 1 should be replaced by the following and the two remarks on page 373 should be stricken:

Theorem 1. *Let $\hat{F}$ be a Jacobian Kummer surface with Picard number 17. Then $\hat{F}$ does not admit an irreducible elliptic fibration.*

Proof. This was proved in [K2] (see Example 4).

References

[K1] Keum,J., *Two extremal elliptic fibrations on Jacobian Kummer surfaces*, manuscripta math.91(1996),369-377.
[K2] Keum,J., *A note on elliptic K3 surfaces*, preprint.

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