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CORRECTION



Correction to: A characterization of symplectic Grassmannians

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Correction to: Math Z

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We refer to our original paper, using the same notation.

We thank Jun-Muk Hwang for pointing out that the homomorphism of algebraic groups $\eta: \operatorname{GL}(\mathcal{F}_{2,x}^{\vee})_{\mathcal{Q}_{x}^{\vee}} \to \operatorname{GL}(T_{X,x})$ has a nontrivial kernel (isomorphic to \mathbb{Z}_{2}), preventing us from defining, in Section 3.3, the vector bundles \mathcal{Q}^{\vee} , \mathcal{F}_{1}^{\vee} , \mathcal{F}_{2}^{\vee} . However, the main Theorem of the paper may still be proved by slightly modifying our arguments as follows.

1. In Section 3.3, instead of defining the vector bundles \mathbb{Q}^{\vee} , \mathcal{F}_{1}^{\vee} , \mathcal{F}_{2}^{\vee} over X, we may only define the corresponding projective bundles \mathbb{Z} , \mathbb{U}_{1} and \mathbb{U}_{2} over X, and vector bundles \mathbb{G} , $\mathbb{H}\mathbb{G}$ over \mathbb{U}_{1} , whose projectivizations give \mathbb{U} and $\mathbb{H}\mathbb{U}$, fitting in a sequence:

$$0 \to \mathcal{K} \longrightarrow \mathcal{G} \longrightarrow H\mathcal{G} \to 0$$

with \mathcal{K} a line bundle.

On the other hand, the desired vector bundles \mathbb{Q}^{\vee} , \mathcal{F}_{1}^{\vee} , \mathcal{F}_{2}^{\vee} may still be constructed over a rational curve ℓ of the family \mathbb{M} . By choosing an appropriate twist, they fit in the commutative diagram

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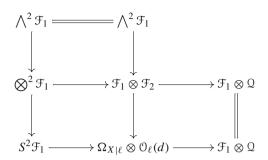
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for d = 0 or 1.

- 2. The computations in Section 4 can then be carried out in the same way, and they provide $\mathfrak{O}(H\mathcal{U}) \cdot \ell = d = 0$.
- 3. To prove Corollary 5.2 we had used a result of Fujita, which no longer applies, since we do not have a divisor of degree one on the fibers of ρ ; however the conclusion of the Corollary is still true, since ρ is equidimensional, by applying [1, Theorem 1.3].
- 4. The main goal of Section 5 was to prove the existence of an everywhere nondegenerate skew-symmetric form on the vector bundle Ω , whose existence is now not clear. However, the arguments of the section provide, verbatim, the existence of an everywhere nondegenerate skew-symmetric form on the bundle HG.
- 5. In section 6, we may now consider the A_{r-1} -bundle $\overline{\mathcal{U}}_1 \to X$ associated to $\mathcal{U}_1 \to X$ and the fiber product

$$\begin{array}{ccc} \overline{\mathcal{U}}_1 \times_{\mathcal{U}_1} H \mathcal{U} & \longrightarrow H \mathcal{U} \\ \downarrow & & \downarrow \\ \overline{\mathcal{U}}_1 & \longrightarrow \mathcal{U}_1 \end{array}$$

Since $H\mathcal{U} \to \mathcal{U}_1$ is given by a cocycle with values in $Sp(\Omega_x^{\vee})$, by the results of Section 5, the same holds for $\overline{\mathcal{U}}_1 \times_{\mathcal{U}_1} H\mathcal{U} \to \overline{\mathcal{U}}_1$, and we may construct its associated C_{n-r} -bundle, $\overline{H\mathcal{U}} \to \overline{\mathcal{U}}_1$. Then the composition

$$\overline{q}: \overline{\mathrm{H}}\overline{\mathrm{U}} \longrightarrow \overline{\mathrm{U}}_1 \longrightarrow X$$

is an $(A_{r-1} \sqcup C_{n-r})$ -bundle over X. From this point on, the proof goes on verbatim.

Reference

 Höring, A., Novelli, C.: Mori contractions of maximal length. Publ. Res. Inst. Math. Sci. 49(1), 215–228 (2013)

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