Correction to
"Igusa quartic and Steiner surfaces" (by Shigeru Mukai)

The paragraph before Theorem 2 is not precise enough to decide our Fricke involution of $H_2/\Gamma_1(2)$. In fact, two explanations, analytic and moduli-theoretic ones, conflict to each other. It should read as follows:

"The element $\frac{1}{\sqrt{2}}\begin{pmatrix} 0 & I_2 \\ -2I_2 & 0 \end{pmatrix} \in Sp(4,\mathbb{R})$ belongs to the normalizer of $\Gamma_0(2)$, and induces an involution of the quotient $H_2/\Gamma_0(2)$, which is called the Fricke involution. Moduli-theoretically, the Fricke involution maps a pair $(A, G)$ to $(A/G, A_{(2)}/G)$. We note that a 2-dimensional vector space $V$ is *almost* isomorphic to its dual $V^\vee$, or more precisely, we have $V \overset{can.}{\simeq} V^\vee \otimes \det V$. Hence the quotient $A_{(2)}/G$ is canonically isomorphic to $G$ via Weil pairing. Therefore, the Fricke involution has the canonical lift on $H_2/\Gamma_1(2)$, which we call the *(canonical) Fricke involution of* $H_2/\Gamma_1(2)$. Our Fricke involution is the composite of $\frac{1}{\sqrt{2}}\begin{pmatrix} 0 & I_2 \\ -2I_2 & 0 \end{pmatrix}$ and the involution $\begin{pmatrix} J_2 & 0 \\ 0 & J_2 \end{pmatrix}$, where we put $J_2 = \begin{pmatrix} 0 & 1 \\ -1 & 0 \end{pmatrix}$. It commutes with each element of $\Gamma_0(2)/\Gamma_1(2) \simeq \mathfrak{S}_3$ and $H_2/\Gamma_1(2)$ has an action of the product group $C_2 \times \mathfrak{S}_3$. Two pairs $(A, G)$ and $(A/G, A_{(2)}/G)$ (in $H_2/\Gamma_1(2)$) are geometrically related to each other by Richelot's theorem. See Remark 7."