Erratum: Rational curves on holomorphic symplectic fourfolds

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In this Erratum we correct two mistakes in our paper:

Rational curves on holomorphic symplectic fourfolds, Geometric and Functional Analysis 11 (2001), no. 6, 1201-1228

We are grateful to Antoine Chambert-Loir for pointing out that the first paragraph of Theorem 4.1 should read as follows:

Let \( F \) be an irreducible holomorphic symplectic manifold of dimension \( 2n \) and \( Y \) a submanifold of dimension \( k \). Assume either that \( Y \) is Lagrangian, or that all of the following hold:
\[
N_{Y/F} = \Omega^1_Y \oplus \mathcal{O}^{2n-2k}_Y,
\]
the restriction of the symplectic form to \( Y \) is zero, and \( H^1(\mathcal{O}_Y) = 0 \). Then the deformation space of \( Y \) in \( F \) is smooth, of dimension \( 2n - 2k \) if the last three conditions above hold.

We are grateful to Claire Voisin for pointing out that Proposition 7.4 requires an additional hypothesis, and should read as follows:

Let \( X \) be a cubic fourfold with Fano variety \( F \). Assume that \( F \) contains a smooth rational curve \( R \) of degree \( n \), with corresponding scroll \( T_{n,\Delta} \). Assume that this corresponding scroll \( T \) is not a cone and has isolated singularities. Then there exists a rational map
\[
\phi : \mathbb{P}^4 \to X
\]
with
\[
\deg(\phi) = \left(\frac{n-2}{2}\right) - \Delta = \frac{(n-2)^2}{4} + \frac{(R,R)}{2} + 1.
\]
Without this hypothesis the double point computation fails, as is shown by the example
\[
T = \{ x^2z + y^2t = 0 \}.
\]