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CORRECTION

Correction to: Brieskorn Module and Center Conditions: Pull-Back of Differential Equations in Projective Space

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The original version of this article, published on 26 June 2021, unfortunately contained a mistake. In **Theorem 5.1** particularly in *Example 5.1* has incorrect data. Corrected **Theorem 5.1** is shown below.

Theorem 5.1 ([22, Chapter 7]) Let $\mathcal{P}_l(s,a)$ be the set of pull-back differential equations

$$\mathcal{F}\left(F^*(\omega)\right),$$
$$F(x,y,z) = [R,S,aR+bS+L^s], \quad \text{where } R,S \in \mathbb{C}[x,y,z]_s, \quad L \in \mathbb{C}[x,y,z]_1,$$

and $\mathcal{F}(\omega)$ is a foliation of degree a in $\mathbb{P}^2$ which leaves the line $ax + by + z = 0$ *invariant. The space* $\mathcal{P}_l(s,a)$ *is an irreducible component of* $\mathcal{M}(2, s(a+1)-1)$. *In particular,* $\mathcal{P}_l(2,1)$ *is an irreducible component of* $\mathcal{M}(2,3)$.

Example 5.1 Let $\mathcal{F}(\omega)$ be the foliation represented by $\omega := zxdx + zydy - (x^2 + y^2)dz$ with the line at infinity invariant. Therefore, $\mathcal{F}\left(F^*(\omega)\right) \in \mathcal{P}_l(2,1)$ and has degree 3. Here, $F = \left[\widehat{R}, \hat{S}, z^2\right]$ is a morphism of $\mathbb{P}^2$, and $R, S \in \mathbb{C}[x,y]_2$ are two generic co-prime polynomials of degree 2 such that $\widehat{R}, \hat{S}$ are homogenization of R, S.

Original article has been corrected.

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