CORRIGENDA: INTEGRABLE EVOLUTIONS OF TWISTED POLYGONS IN CENTRO-AFFINE \mathbb{R}^m

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In the paper Integrable Evolutions of Twisted Polygons in Centro-Affine \mathbb{R}^m [1], the statement of Theorem 5.5 is incorrect and its proof flawed. While the vector fields X^1 and X^2 are in the kernel of ω_1 , they do not generate it. Fortunately, this theorem is at the end of the article and is not used in other parts of the work; so no other result is affected by it.

The correct statement, together with its proof, appears in Theorem 7.2 of [2], where the kernel is described in terms of fractional powers of difference operators. Using this different approach, it is shown that there are m-1 independent vector fields in the kernel of ω_1 , making the dimension of the kernel at least m-1.

References

- [1] Calini, A. and Marí Beffa G., Integrable Evolutions of Twisted Polygons in Centro-Affine \mathbb{R}^m . Int. Math. Res. Not. IMRN, 6, 4318–4375, (2022).
- [2] G. Marí Beffa, W_m Algebras and Fractional Powers of Difference Operators, Nonlinearity, 37-9, 095011 (July 2024).

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