Erratum to the paper

Alexander Isaev, Boris Kruglikov, "On the symmetry algebras of 5-dimensional CR-manifolds", Advances in Mathematics, vol. 322, 530-564 (2017)

In Section 5 in the proof of Theorem 5.1 we erroneously stated that the CR symmetry algebra of the real hypersurface $\mathrm{Im}(w) = \mathrm{Re}(z_1)|z_2|^2$ in $\mathbb{C}^3(z_1, z_2, w)$ is 8-dimensional. In fact, it has symmetry dimension 7 as a direct computation shows.

A flaw in our computation is due to an error in Theorem 1.1 of the paper M. Kolář, F. Meylan, D. Zaitsev, *Chern-Moser operators and polynomial models in CR geometry*, Adv. Math. **263**, 321-356 (2014) that gives an erroneous description of the entire algebra of symmetries. (In formula (5) of loc.cit. there should be minus instead of plus!)

Let us note that due to Theorem 1.10 of M. Kolar, F. Meylan, *Nonlinear CR automorphisms of Levi degenerate hypersurfaces and a new gap phenomenon*, Annali Sc. Norm. Super. Pisa Cl. Sci. (5) Vol. XIX, 847-868 (2019) a hypersurface $\mathrm{Im}(w) = P(z, \bar{z})$ in $\mathbb{C}^3(z_1, z_2, w)$ given by a weighted homogeneous real polynomial P of degree 1 on $\mathbb{C}^2(z_1, z_2)$ cannot admit a symmetry algebra of dimesnion 8.

Anyway the claim of Theorem 5.1 holds true as there are other real hypersurfaces $M \subset \mathbb{C}^3$ with $\dim \mathfrak{s}(M) = 8$. An example is given by the Winkelmann surface $\mathrm{Im}(w) = z_1\bar{z}_2 + z_2\bar{z}_1 + |z_1|^4$. Let us note that in Levi-nondegenerate case this is the only example due to by Theorem 2 of A. V. Loboda, *On the dimension of a group transitively acting on a hypersurface in* $\mathbb{C}^3$, Functional Analysis and Applicatios, **33**, no.1, 58-60 (1999).