Reply to "Comment on 'Magnon wave forms in the presence of a soliton in two-dimensional antiferromagnets with a staggered field' "

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This is a reply to the Comment on our paper, and we make a small commentary on the solutions.

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In a Comment on our paper,[1] Sheka[2] has made some corrections to our calculations. Here we present a reply.

The solution presented to Eq. (7) of Ref. 1 was obtained by Kosevich *et al.*,[3] but as Sheka mentions we have not used the out-of-plane soliton structure for $\theta(r)$.

The equation $\eta(\vec{r},t)=A\cos(\vec{k}\cdot\vec{r}-\omega t)$ can be used, if we take $\Omega=0$, and in this case our results are correct.

Now for $\Omega\neq 0$ the correct solution is really $\theta\ll 1$, $\phi=\vec{k}\cdot\vec{r}-\omega t$, and we obtain a similar equation to our Eq. (17).

We thank Sheka for the correction of our paper.

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[2] Denis D. Sheka, Phys. Rev. B **75**, 107401 (2007).
[3] A. M. Kosevich *et al.*, Zh. Eksp. Teor. Fiz. **84**, 148 (1983).

