Erratum: The role of large-scale magnetic fields in galaxy NGC 891: can magnetic fields help to reduce the local mass-to-light ratio in the galactic outskirts?

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The paper 'The role of large-scale magnetic fields in galaxy NGC 891: can magnetic fields help to reduce the local mass-to-light ratio in the galactic outskirts?' was published in MNRAS 421, 2155 (2012).

There was an error in the integration procedure used to create the curves in Fig. 10. The curves represent an example magnetic field with an intensity of a few microgauss, sufficient to reduce the local mass-to-light ratio to a required value. The corrected azimuthal component of magnetic field increases with the distance as previously, the field is a little higher, the maximum is located at a larger distance and is less pronounced. The corrected vertical component of magnetic field changes more with the distance than previously. However, in a real situation, the vertical component should be negligible close to the $z=0$ plane, by virtue of the reflection symmetry argument. With the new Fig. 10, the main conclusions of the paper do not change.

Figure 10. Magnetic field needed to lower the rotation so that the profile of the local mass-to-light ratio is a non-increasing function of the galactocentric distance: the vertical component $B_z$ of the magnetic field (dotted line), and the azimuthal component $B_\phi$ of the magnetic field (solid line).

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