Erratum: Stable Vortex–Bright-Soliton Structures in Two-Component Bose-Einstein Condensates [Phys. Rev. Lett. 105, 160405 (2010)]

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DOI: 10.1103/PhysRevLett.106.199903

PACS numbers: 03.75.Lm, 03.75.Mn, 03.75.Hh, 99.10.Cd

An eigenvalue resonance and the resulting dynamical instability occur when $S_1 = S = 0$ and $S_2 = 1$ rather than as stated in the manuscript when $S_1 = S = 1$ and $S_2 = 0$. Therefore, Fig. 1 should replace the left panel of Fig. 2 in the manuscript. We thank Jan Stockhofe and Peter Schmelcher very much for bringing this to our attention and pointing us to the reference [1] in which a similar conclusion is reached.

In addition to the replacement of the figure, the statements in the last sentence of the *Physical setup* section and at the end of the second paragraph of the *Results* section should be modified to reflect the fact that the dynamical instability exists for the vortex–bright-soliton state with a vortex in the *second* component rather than the first. When the first component (with the stronger intracomponent coupling) is in a vortex state and the second component is a bright-soliton state, the solution is stable.

This does not affect the other results in the Letter.

[1] D. V. Skryabin, Phys. Rev. A 63, 013602 (2000).



FIG. 1 (color online). Growth rate of the S - 1 mode as a function of R with N = 4000 for S = 0 and $S_2 = 1$.