Erratum: Nonlinear-resonance line shapes: Dependence on the transverse intensity distribution of a light beam [Phy. Rev. A 69, 024501 (2004)]

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We were recently made aware of an article [1] published some time before our recent paper [2], which addressed much of the same subject matter. In part of their article, Levi *et al.* analyzed the effects of a nonuniform transverse beam intensity profile on the line shape of coherent population trapping (CPT) resonances. Specifically, they derived an expression for the line shape of both the emitted rf power in a CPT maser and the fluorescence spectrum in a traditional CPT experiment, when a laser beam with a Gaussian beam profile is used to excite the resonance. In our paper, we derived an expression equivalent to the latter, which does not correspond to the results of [1]. Our result [Eq. (13)] contains a term,

$$\Delta \arctan[S_0\Delta/(1+S_0+\Delta^2)], \tag{1}$$

which does not appear in Ref. [1], Eq. (12), and which dominates the line-shape function for a wide range of parameters. We acknowledge the prior analysis of Levi *et al.*, but believe our expression to be correct.

[1] F. Levi, A. Godone, J. Vanier, S. Micalizio, and G. Modugno, Eur. Phys. J. D **12**, 53 (2000).

