Erratum: Analytic study of persistent current in a two-channel disordered mesoscopic ring [Phys. Rev. B 84, 075147 (2011)]

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Our prediction of the existence of two periodicities, ϕ_0 and $\phi_0/2$, in the persistent current is clearly confirmed experimentally by their concomitant observation in diffusive gold rings reported in an earlier paper by Jariwala *et al.*[1] This important reference was inadvertently omitted in our paper.

The current component of periodicity $\phi_0/2$ is the free particle current given by the first term in our Eq. (51). The component of periodicity ϕ_0 describes the effect of the disorder and is given approximately in a closed form by the second term in Eq. (51). Both currents are diamagnetic ($dI/d\phi < 0$ for $\phi \to 0$), thus supporting the experimental findings of Ref. 1.

In contrast, as recalled in our paper, in one-dimensional rings both the free particle current and the disorder effect have period $\phi_0/2$ and the total current is diamagnetic.

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[1]E. M. Q. Jariwala, P. Mohanty, M. B. Ketchen, and R. A. Webb, Phys. Rev. Lett. **86**, 1594 (2001).

