Erratum: Gravitational waves from inspiraling compact binaries: Energy flux to third post-Newtonian order [Phys. Rev. D 65, 064005 (2002)]

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The contribution of tails in the flux of gravitational waves $\mathcal{L}$ from compact binaries has been incorrectly computed in Refs. [1,2]. As a consequence some post-Newtonian coefficients in the present paper are modified. The correction affects only the ν-corrections in the coefficients at 2.5PN and 3.5PN orders. The other coefficients are not modified. Eqs. (12.6), (12.18) and (12.19) are, respectively, changed to

$$\mathcal{L}_{\rm tail} = \frac{32c^5}{5G}\gamma^5\nu^2\left\{4\pi\gamma^{3/2} + \left(-\frac{25663}{672} - \frac{125}{8}\nu\right)\pi\gamma^{5/2} + \left(\frac{90205}{576} + \frac{505747}{1512}\nu + \frac{12809}{756}\nu^2\right)\pi\gamma^{7/2} + \mathcal{O}(\gamma^4)\right\}. \quad (1)$$

$$\begin{aligned}\mathcal{L} = \frac{32c^5}{5G}\gamma^5\nu^2\Bigg\{1 &+ \left(-\frac{2927}{336} - \frac{5}{4}\nu\right)\gamma + 4\pi\gamma^{3/2} + \left(\frac{293383}{9072} + \frac{380}{9}\nu\right)\gamma^2 + \left(-\frac{25663}{672} - \frac{125}{8}\nu\right)\pi\gamma^{5/2} \\ &+ \left(\frac{129386791}{7761600} + \frac{16\pi^2}{3} - \frac{1712}{105}C - \frac{856}{105}\ln(16\gamma) + \left[-\frac{332051}{720} + \frac{110}{3}\ln\left(\frac{r}{r'_0}\right) + \frac{123\pi^2}{64} + 44\lambda - \frac{88}{3}\theta\right]\nu\right. \\ &\left. - \frac{383}{9}\nu^2\right)\gamma^3 + \left(\frac{90205}{576} + \frac{505747}{1512}\nu + \frac{12809}{756}\nu^2\right)\pi\gamma^{7/2} + \mathcal{O}(\gamma^4)\Bigg\}. \end{aligned} \quad (2)$$

$$\begin{aligned}\mathcal{L} = \frac{32c^5}{5G}x^5\nu^2\Bigg\{1 &+ \left(-\frac{1247}{336} - \frac{35}{12}\nu\right)x + 4\pi x^{3/2} + \left(-\frac{44711}{9072} + \frac{9271}{504}\nu + \frac{65}{18}\nu^2\right)x^2 + \left(-\frac{8191}{672} - \frac{583}{24}\nu\right)\pi x^{5/2} \\ &+ \left(\frac{6643739519}{69854400} + \frac{16\pi^2}{3} - \frac{1712}{105}C - \frac{856}{105}\ln(16x) + \left[-\frac{11497453}{272160} + \frac{41\pi^2}{48} + \frac{176}{9}\lambda - \frac{88}{3}\theta\right]\nu\right. \\ &\left. - \frac{94403}{3024}\nu^2 - \frac{775}{324}\nu^3\right)x^3 + \left(-\frac{16285}{504} + \frac{214745}{1728}\nu + \frac{193385}{3024}\nu^2\right)\pi x^{7/2} + \mathcal{O}(x^4)\Bigg\}. \end{aligned} \quad (3)$$

In addition, the mass m in Eq. (11.8) should read M, the ADM mass of the source.

[1] L. Blanchet, Phys. Rev. D **54**, 1417 (1996).
[2] L. Blanchet, Class. Quant. Grav. **15**, 113 (1998).

