CORRIGENDUM

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Corrigendum: Gravitational waves from plunges into Gargantua (2018 *Class. Quantum Grav.* **35** 104002)

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1. List of corrections

We note the following typos in [1]. (A.36) should read as

$$\frac{1}{\sin\theta}\frac{\mathrm{d}}{\mathrm{d}\theta}(\sin\theta\frac{\mathrm{d}S_{lm\hat{\omega}}}{\mathrm{d}\theta})+[(a\hat{\omega})^2\cos^2\theta-2a\hat{\omega}s\cos\theta-(\frac{m^2+2ms\cos\theta+s^2}{\sin^2\theta})+\mathcal{E}_{lm\hat{\omega}}]S_{lm\hat{\omega}}=0. \tag{1.1}$$

(A.42) should read as

$$T_{lm\hat{\omega}}(\hat{r})=\frac{1}{(2\pi)^{3/2}}\int_{-\infty}^{\infty}\mathrm{d}\hat{t}\int_{-1}^{1}\mathrm{d}\cos\theta\int_{0}^{2\pi}\mathrm{d}\hat{\phi}\mathrm{e}^{\mathrm{i}(\hat{\omega}\hat{t}-m\hat{\phi})}(4\pi\Sigma)T_{(s)}S_{lm\hat{\omega}}(\theta). \tag{1.2}$$

(B.4) should read as

$$\Phi=\Phi_0+\frac{3}{4}\sqrt{1+\frac{2\ell_* R}{E}}-2\,\mathrm{arctanh}\sqrt{1+\frac{2\ell_* R}{E}}-\mathrm{i}\pi. \tag{1.3}$$

and (B.28) should then read as $\bar{T}_0=0$, $\bar{\Phi}_0=\Phi_0$. The two orbits Circular$_*$ and Plunging$_*(E)$ are therefore related by a real $SL(2,\mathbb{R})\times U(1)$ transformation.

Below (B.5), $F(r)$ should be $F(R)$.
(C.1) should read as

$$T_{\Phi\Phi} = \frac{m_0 R_0}{\sqrt{3}M}\delta(R - R_0)\delta(\theta - \frac{\pi}{2})\delta(\Phi - \tilde{\Omega}T). \tag{1.4}$$

(C.7) should read as

$$T_{lm\tilde{\Omega}}(R) = -4M^2 \int_0^{2\pi} \mathrm{d}\Phi \mathrm{e}^{-\mathrm{i}m(\Phi - \tilde{\Omega}T)} \int_{-1}^{1} \mathrm{d}\cos\theta S_{lm}(\theta)(1 + \cos^2\theta)(1 - \mathrm{i}\cos\theta)^4 \mathcal{T}_4. \tag{1.5}$$

(C.22) should read as

$$(\frac{\mathrm{d}E}{\mathrm{d}\hat{t}})^H = \frac{128\hat{\omega}\hat{k}(\hat{k}^2 + 4\epsilon^2)(\hat{k}^2 + 16\epsilon^2)(2Mr_+)^5}{|C|^2}|Z_{\mathrm{hole}}|^2. \tag{1.6}$$

Also, regarding the comments above (4.2), the limitation to frequencies $\hat{\omega} > 0$ is not necessary. All results apply to $\hat{\omega} < 0$ as well, with $m < 0$ correspondingly, in order to obey (4.2).

Finally, regarding the discussion on critical behavior in the conclusions, the amplitude does not diverge in the limit $\ell \to \ell_*$. Instead, as discussed in [2], the amplitude enhancement factor $(1 - \frac{\ell_*^2}{\ell^2})^{-1/4}$ effectively amounts to partly compensate the near-NHEK redshift factor $\lambda^{1/2}$ to lead to the NHEK redshift factor $\lambda^{1/3}$. This resolution is independent of self-force effects.

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