

Erratum: Coherent synchrotron radiation instability in a bunch compressor [Phys. Rev. ST Accel. Beams 5, 064401 (2002)]

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In our original paper the sign of the coefficient R_{56} used in numeric calculations was wrong. It has to be changed to be consistent with the sign convention assumed in the design of a bunch compressor. The sign of R_{56} depicted in Fig. 1 has to be changed from negative to positive. The sign of the chirp u related to the sign of the R_{56} has to be changed as well: the chirp u in the first paragraph of Sec. VI should be positive, $u = +39.83 \text{ m}^{-1}$. These changes do not affect the formulas of the paper but slightly modify the numeric results. The results of corrected calculations are shown in Figs. 1 and 2 given below, which should replace Figs. 3 and 4 in the paper, respectively.

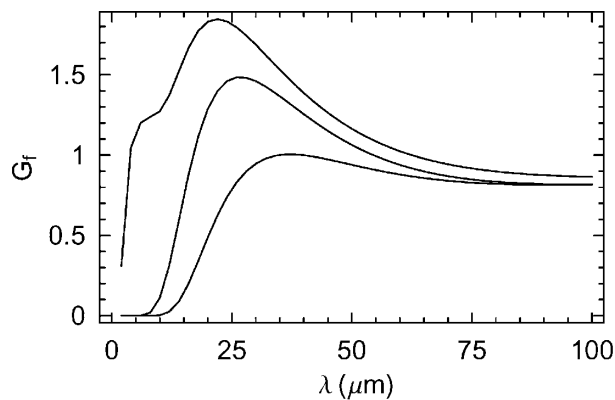


FIG. 1. Amplification factor G_f as a function of wavelength λ of the perturbation at the compressor entrance for various beam emittance and energy spread: (1) $\sigma_p = 3.0 \times 10^{-5}$, $\epsilon = 1 \mu\text{m}$; (2) $\sigma_p = 3.0 \times 10^{-5}$, $\epsilon = 0$; (3) $\sigma_p = 3.0 \times 10^{-6}$, $\epsilon = 1 \mu\text{m}$.

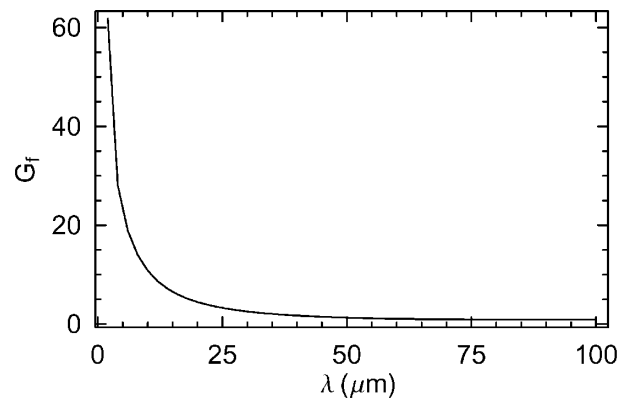


FIG. 2. Amplification factor G_f as a function of wavelength for the zero beam emittance and $\sigma_p = 3.0 \times 10^{-6}$.