# Design of Analog CMOS Integrated Circuits 

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## Errata

p. 6, Section 1.3, first sentence should read: The idea of metal-oxide-semiconductor ...
p. 26, In Eq. (2.28), move $1+\lambda V_{D S}$ from the denominator to the numerator.
p.32, fifth line from top: change $4 \Phi_{F}$ to $4\left|\Phi_{F}\right|$.
p. 88 , second line below Eq. (3.124) should read: ... roughly $g_{m} r_{0}^{2}$.
p. 128 , fifth line from bottom: change $M_{2}$ to $M_{3}$. Fourth line from bottom: change $M_{3}$ to $M_{2}$.
p. 155 , first line: change Chapter 3 to Chapter 4.
p. 156, eighth line from top: change Chapter 3 to Chapter 4.
p. 210 , eighth line from bottom: change Section 6.1.1 to Section 7.1.1.
p. 226, Eq. (7.58): change $\overline{V_{n}^{2}}$ to $\overline{V_{n, i n}^{2}}$.
p. 249, fifth line from top, change $X A /(1+\beta A)$ to $X A \beta /(1+$ $\beta A)$. Sixth line from top should read: Approaching $X$...
p. 286, Problem 8.12: change $I_{D 2}$ to 0.25 mA .
p. 296: last line should read ... exhibits a mirror pole (Chapter 6)
p. 306 , fifth line from top should read: $g_{m 7,8}=0.005 \mathrm{~A} / \mathrm{V}$.
p. 308, second line from bottom: change $V_{\text {out } 2}$ to $V_{\text {out }}$.
p. 310, last sentence should read: ... in 1979 [4] and ... in 1990 [5, 6].
p. 327, Fig. 9.51 caption should read: Response of linear op amp to a step.
p. 336: Eq. (9.44): move the denominator to the numerator.
p. 358 , sixth line from top should read: $\mathrm{To}-90^{\circ} \ldots$
p. 382 , first line from top should read: Intrinsic carrier ...
p. 384, Eq. (11.18) should read: $V_{B E}=V_{T} \ldots$
p. 452 , Eq. (13.8) should read: $\ldots+\alpha_{3} A^{3} \cos \omega t$.
p. 455 , Eq. (13.26) should read: $y(t)=\alpha_{a}\left[\left(V_{m}-\beta a\right) \ldots\right.$.
p. 473 , last line: change $A_{u x}$ to $A_{\text {aux }}$.
p. 518, Caption of Fig. 14.48 should read: (c) largest delay.
p. 543 , sentence above Fig. 15.15 should end as: ... than does $y_{1}(t)$.
p. 553, Example 15.8: Waveforms at E and F change simulaneously, leading to a reset pulsewidth of about five gate delays (rather than 10 gate delays).


Fig. 1.
p. 555, first line in Solution should read 5 gate delays ...
p. 562, first line from bottom should read $T_{p} \approx 5 T_{D} \ldots$
p. 590, Fig. caption should read: (a) Decrement in channel length for small $V_{D S}$, (b) decrement in channel length for large $V_{D S}$, (c) effect on the output impedance.
p. 591, fifth line from top: change $V_{D, s a t}$ to $V_{D S, \text { sat }}$.

