# Erratum: Spin depolarization of holes and lineshape of the Hanle effect in semiconductor nanostructures [Phys. Rev. B **80**, 113301 (2009)]

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The main result of this paper is given by Eq. (3):

$$S_z = \frac{T_s}{\tau} S_{z0} \widetilde{b}^{-2} \exp(\widetilde{b}^{-2}) \mathrm{Ei}(\widetilde{b}^{-2}) \equiv \frac{T_s}{\tau} S_{z0} A(\widetilde{b})$$

and we have cited Ref. [1] as the reference for defining the standard function $\mathrm{Ei}(x)$. This *combination* is unfortunately incorrect. Keeping to the notation of Ref. [1], the correct expression should contain the relevant function $E_1(x)$ instead of $\mathrm{Ei}(x)$, i.e.,

$$S_z = \frac{T_s}{\tau} S_{z0} \widetilde{b}^{-2} \exp(\widetilde{b}^{-2}) E_1(\widetilde{b}^{-2}) \equiv \frac{T_s}{\tau} S_{z0} A(\widetilde{b}).$$

To avoid further ambiguities, we quote here a series expansion for $E_1(x)$:

$$E_1(x) = -\gamma - \ln(x) - \sum_{n=1}^{\infty} (-1)^n \frac{x^n}{nn!} \quad (x > 0),$$

where $\gamma \approx 0.577\ldots$

The error was solely in the notation. Neither the calculation results nor any conclusions were affected.

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[1] M. Abramowitz and I. A. Stegun, *Handbook of Mathematical Functions* (Dover, New York, 1964).