



Correction to: Semi-analytic contact technique in a non-linear parametric model order reduction method for gear simulations

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Correction to: Meccanica (2018) 53:49–75
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Unfortunately, a writing error was made by the authors during the writing of this research article. The mistake concerns the expression for the penetration between two parallel cylinders with ideal line contact that is presented on page 62:

Incorrect section of the article:

The contact model uses a formula (Eq. 20) derived from the Hertz theory by Harris and Kotzalas [10,

Chapter 6.3] in case of parallel axes cylinders in contact with each others (with ideal line contact):

$$\alpha = \frac{2P}{\pi l} \left(\frac{1 - \nu_1^2}{E_1} + \frac{1 - \nu_2^2}{E_2} \right) \ln \left(\frac{\pi l^2}{P} \left(\frac{1}{R_1} + \frac{1}{R_2} \right) \left(\frac{1 - \nu_1^2}{E_1} + \frac{1 - \nu_2^2}{E_2} \right)^{-1} \right) \quad (20)$$

[10] T. A. Harris and M. N. Kotzalas, Essential Concepts of Bearing Technology, Taylor & Francis Group, 2007.

The corrections that should be applied refer to the expression for Eq. 20 and its reference in the article:

The contact model uses a formula (Eq. 20) derived from the Hertz theory by Puttock and Thwaite [10] in case of parallel axes cylinders in contact with each other (with ideal line contact):

$$\alpha = \frac{P}{\pi l} \left(\frac{1 - \nu_1^2}{E_1} + \frac{1 - \nu_2^2}{E_2} \right) \left[1 + \ln \left(\frac{\pi l^3}{P} \left(\frac{1}{R_1} + \frac{1}{R_2} \right) \left(\frac{1 - \nu_1^2}{E_1} + \frac{1 - \nu_2^2}{E_2} \right)^{-1} \right) \right] \quad (1)$$

The reference [10] should read:

[10] M. J. Puttock and E. G. Thwaite, “Elastic Compression of Spheres and Cylinders at Point and Line Contact,” Commonwealth Scientific and

The original article can be found online at <https://doi.org/10.1007/s11012-017-0710-5>.

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