

On topology optimization of design-dependent pressure-loaded three-dimensional structures and compliant mechanisms

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Errors were identified in the article¹ subsequent to its publication.

Equations (12)–(14) were written incorrectly in the article,¹ the corresponding correct equations are

$$\tilde{\rho}_i = \frac{\sum_{j=1}^{N_e} v_j \rho_j w(\mathbf{x}_j)}{\sum_{j=1}^{N_e} v_j w(\mathbf{x}_j)}, \quad (12)$$

$$w(\mathbf{x}_j) = \max \left(0, 1 - \frac{\|\mathbf{x}_i - \mathbf{x}_j\|}{R_{\text{fill}}} \right), \quad (13)$$

$$\frac{\partial \tilde{\rho}_i}{\partial \rho_j} = \frac{v_j w(\mathbf{x}_j)}{\sum_{k=1}^{N_e} v_k w(\mathbf{x}_k)}. \quad (14)$$

These corrections do not change any results, discussions, or conclusions as they were implemented correctly in the codes.

REFERENCE

1. Kumar P, Langelaar M. On topology optimization of design-dependent pressure-loaded three-dimensional structures and compliant mechanisms. *Int J Numer Methods Eng*. 2021;122(9):2205–2220.