

Corrigendum to

Overcoming the cohesive zone limit in composites delamination: modeling with slender structural elements and higher-order adaptive integration (International Journal for Numerical Methods in Engineering, (2020), 121, 24, (5511-5545), 10.1002/nme.6497)

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DOI

[10.1002/nme.6938](https://doi.org/10.1002/nme.6938)

Publication date

2022

Document Version

Final published version

Published in

International Journal for Numerical Methods in Engineering

Citation (APA)

Russo, R., & Chen, B. (2022). Corrigendum to: Overcoming the cohesive zone limit in composites delamination: modeling with slender structural elements and higher-order adaptive integration (International Journal for Numerical Methods in Engineering, (2020), 121, 24, (5511-5545), 10.1002/nme.6497). *International Journal for Numerical Methods in Engineering*, 123(11), 2676-2677. <https://doi.org/10.1002/nme.6938>

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CORRIGENDUM**WILEY**

Overcoming the cohesive zone limit in composites delamination: modeling with slender structural elements and higher-order adaptive integration

(*Int. J. Numer. Meth. Engng.* 2020, 121(24): 5511-5545; DOI:10.1002/nme.6497)

The authors would like to point out three writing mistakes that have been found after the publication of the original paper:

- Equation (13) should be written as:

$$\mathbf{q}^{\text{CE}} = \begin{bmatrix} \mathbf{u}^{\text{bot}} \\ \mathbf{a}^{\text{bot}} \\ \mathbf{u}^{\text{top}} \\ \mathbf{a}^{\text{top}} \end{bmatrix} \quad (1)$$

to correctly represent the intended column vector of the element's degrees of freedom.

- Equation (49) and (50) should be written as:

$$\begin{aligned} \frac{\partial^2 \gamma_\xi}{\partial \xi \partial \mathbf{q}^{\text{CE}}} &= \frac{1}{2} \left[\frac{\partial \mathbf{N}^u}{\partial \xi}, -\frac{h^{\text{bot}}}{2} \cos \theta^{\text{bot}} \frac{\partial \mathbf{N}^\theta}{\partial \xi}, \frac{\partial \mathbf{N}^u}{\partial \xi}, \frac{h^{\text{top}}}{2} \cos \theta^{\text{top}} \frac{\partial \mathbf{N}^\theta}{\partial \xi} \right] \\ &+ \frac{1}{2} \mathbf{q}^{\text{CE}T} \begin{bmatrix} \mathbf{0} \\ \frac{h^{\text{bot}}}{2} \sin \theta^{\text{bot}} \frac{\partial \mathbf{N}^\theta}{\partial \xi} \otimes \frac{\partial \theta^{\text{bot}}}{\partial \mathbf{q}^{\text{CE}}} \\ \mathbf{0} \\ -\frac{h^{\text{top}}}{2} \sin \theta^{\text{top}} \frac{\partial \mathbf{N}^\theta}{\partial \xi} \otimes \frac{\partial \theta^{\text{top}}}{\partial \mathbf{q}^{\text{CE}}} \end{bmatrix} \end{aligned} \quad (2)$$

$$\begin{aligned} \frac{\partial^2 \gamma_\eta}{\partial \xi \partial \mathbf{q}^{\text{CE}}} &= \frac{1}{2} \left[\mathbf{0}, \frac{\partial \mathbf{N}^v}{\partial \xi} - \frac{h^{\text{bot}}}{2} \sin \theta^{\text{bot}} \frac{\partial \mathbf{N}^\theta}{\partial \xi}, \mathbf{0}, \frac{\partial \mathbf{N}^v}{\partial \xi} + \frac{h^{\text{top}}}{2} \sin \theta^{\text{top}} \frac{\partial \mathbf{N}^\theta}{\partial \xi} \right] \\ &+ \frac{1}{2} \mathbf{q}^{\text{CE}T} \begin{bmatrix} \mathbf{0} \\ -\frac{h^{\text{bot}}}{2} \cos \theta^{\text{bot}} \frac{\partial \mathbf{N}^\theta}{\partial \xi} \otimes \frac{\partial \theta^{\text{bot}}}{\partial \mathbf{q}^{\text{CE}}} \\ \mathbf{0} \\ \frac{h^{\text{top}}}{2} \cos \theta^{\text{top}} \frac{\partial \mathbf{N}^\theta}{\partial \xi} \otimes \frac{\partial \theta^{\text{top}}}{\partial \mathbf{q}^{\text{CE}}} \end{bmatrix} \end{aligned} \quad (3)$$

to keep the vector format consistent across the terms. The derivations afterwards are not affected by this change.

- Equation (63) should have no minus sign on the second term of the second row, that was a typographical error. The correct Equation (63) should be written as:

$$\mathbf{B}^\Delta = \mathbf{N}^{\text{CE}} + \begin{bmatrix} \mathbf{0}, & \mathbf{0}, & \mathbf{0}, & \mathbf{0} \\ \mathbf{0}, & \frac{h^{\text{bot}}}{2} \mathbf{N}^\theta, & \mathbf{0}, & \frac{h^{\text{top}}}{2} \mathbf{N}^\theta \end{bmatrix} \quad (4)$$

The above mistakes appear only in the writing of the manuscript, not in the actual implementation of the method. Hence, the results and conclusions in the original paper remain unchanged.

ACKNOWLEDGMENT

The authors would like to thank Mr. Zhe Han from Nanjing University of Aeronautics and Astronautics for pointing out some of the above mistakes.

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