

Accepted Manuscript

Buckling of a slender rod confined in a circular tube: Theory, simulation, and experiment

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PII: S0020-7403(18)30127-9
DOI: [10.1016/j.ijmecsci.2018.03.008](https://doi.org/10.1016/j.ijmecsci.2018.03.008)
Reference: MS 4218



To appear in: *International Journal of Mechanical Sciences*

Received date: 25 January 2018
Revised date: 4 March 2018
Accepted date: 9 March 2018

Please cite this article as: Jia-Peng Liu, Xiao-Yu Zhong, Zai-Bin Cheng, Xi-Qiao Feng, Ge-Xue Ren, Buckling of a slender rod confined in a circular tube: Theory, simulation, and experiment, *International Journal of Mechanical Sciences* (2018), doi: [10.1016/j.ijmecsci.2018.03.008](https://doi.org/10.1016/j.ijmecsci.2018.03.008)

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Highlights

- Sinusoidal and helical buckling of a slender rod confined in a cylindrical tube.
- Theoretical model for analyzing the morphological evolutions of a confined rod.
- Flexible multibody dynamics method based on geometrically exact beam theory.
- Differences between sinusoid-helix transition during loading and its perversion during unloading.

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