

Accepted Manuscript

Size-dependent axial instability of microtubules surrounded by cytoplasm of a living cell based sdient elasticity theory

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PII: S0022-5193(17)30168-6
DOI: [10.1016/j.jtbi.2017.04.012](https://doi.org/10.1016/j.jtbi.2017.04.012)
Reference: YJTBI 9037



To appear in: *Journal of Theoretical Biology*

Received date: 13 December 2016
Revised date: 5 April 2017
Accepted date: 11 April 2017

Please cite this article as: S. Sahmani , M.M. Aghdam , Size-dependent axial instability of microtubules surrounded by cytoplasm of a living cell based sdient elasticity theory, *Journal of Theoretical Biology* (2017), doi: [10.1016/j.jtbi.2017.04.012](https://doi.org/10.1016/j.jtbi.2017.04.012)

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Highlights

- Development an orthotropic size-dependent shell model for microtubules in a lining cell
- Prediction the size effects on axial instability of microtubules embedded in cytoplasm in a more comprehensive way
- Incorporating the both nonlocality and strain gradient size dependency simultaneously

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