

Accepted Manuscript

Parametric instability of rotating cylindrical shells subjected to periodic axial loads

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PII: S0020-7403(18)30566-6
DOI: [10.1016/j.ijmecsci.2018.07.031](https://doi.org/10.1016/j.ijmecsci.2018.07.031)
Reference: MS 4443



To appear in: *International Journal of Mechanical Sciences*

Received date: 19 February 2018
Revised date: 4 July 2018
Accepted date: 24 July 2018

Please cite this article as: Qiyi Dai, Qingjie Cao, Parametric instability of rotating cylindrical shells subjected to periodic axial loads, *International Journal of Mechanical Sciences* (2018), doi: [10.1016/j.ijmecsci.2018.07.031](https://doi.org/10.1016/j.ijmecsci.2018.07.031)

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Highlights

- In this paper, the Floquet exponent method is first employed to analyze the parametric instability of rotating cylindrical shells under periodic axial loads.
- The results show that the instability of rotating cylindrical shells may be enhanced under some cases due to the existence of viscous damping.
- The influences of rotation speed, static loading and shell geometrical characteristics on the location and width of instability regions for rotating cylindrical shells are investigated.

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