



Professor Arne B. Nordmark

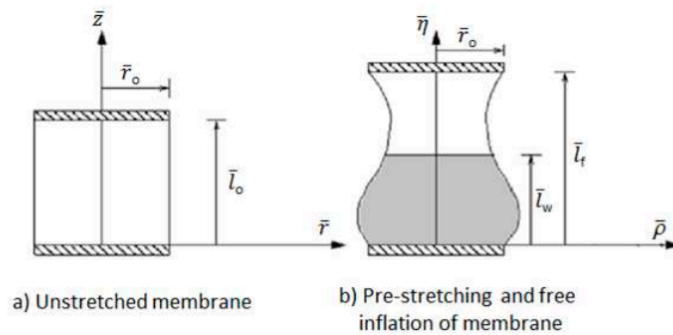


Figure 1: Schematic representation of a fluid-filled cylindrical membrane during free inflation.

From: Amit Patil, Arne Nordmark and Anders Eriksson, "Instability investigation on fluid-filled pre-stretched cylindrical membranes", Proceedings of the Royal Society A, Vol. 471, 20150016, 2015

See:

https://www.mech.kth.se/mech/info_staff.jsp?ID=45

<https://scholar.google.se/citations?user=CTuyAMsAAAAJ&hl=en>

https://www.researchgate.net/profile/Arne_Nordmark

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Selected Publications:

Fredriksson, M. H., Borglund, D., and Nordmark, A. B., 1999, "Experiments on the Onset of Impacting Motion Using a Pipe Conveying Fluid," *Nonlinear Dyn.*, 19, pp. 261–271.

A. Eriksson and A. Nordmark, Instability of hyper-elastic balloon-shaped space membranes under pressure loads, *Comput. Methods Appl. Mech. Engrg.*, 237 (2012), 118–129.

Eriksson A, Nordmark A (2014) Non-unique response of Mooney–Rivlin model in bi-axial membrane stress. *Comput Struct* 144:12–22

Amit Patil, Arne Nordmark and Anders Eriksson, "Finite inflation of fluid-filled pre-stretched cylindrical membranes", 27th Nordic Seminar on Computational Mechanics (NSCM-27), A. Eriksson, A. Kulachenko, M. Mihaescu and G. Tibert (editors), KTH, Stockholm 2014

Amit Patil, Arne Nordmark and Anders Eriksson, "Free and constrained inflation of a pre-stretched cylindrical membrane", *Proceedings of the Royal Society A*, Vol. 470, 20140282, 25 June 2014

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Yang Zhou, Arne Nordmark and Anders Eriksson, "Instability of thin circular membranes subjected to hydrostatic loads", *International Journal of Non-Linear Mechanics*, Vol. 76, pp 144-153, November 2015

Amit Patil, Arne Nordmark and Anders Eriksson, "Wrinkling of cylindrical membranes with non-uniform thickness", *European Journal of Mechanics – A/Solids*, Vol. 54, pp 1-10, November-December 2015

Yang Zhou, Arne Nordmark and Anders Eriksson, "Multi-parametric stability investigation for thin spherical membranes filled with gas and fluid", *International Journal of Non-Linear Mechanics*, Vol. 82, pp 37-48, June 2016

Amit Patil, Arne Nordmark and Anders Eriksson, "Instabilities of wrinkled membranes with pressure loadings", *Journal of the Mechanics and Physics of Solids*, Vol. 94, pp 298-315, September 2016

Anders Eriksson, Arne Nordmark, Amit Patil and Yang Zhou, "Parametric stability investigations for hydrostatically loaded membranes", *Computers & Structures*, Vol. 174, pp 33-41, October 2016

Anders Eriksson and Arne Nordmark, "Symmetry aspects in stability investigations for thin membranes", *Computational Mechanics*, 2016, DOI 10.1007/s00466-016-1317-8

Yang Zhou, Arne Nordmark and Anders Eriksson, "Multi-parametric stability investigation for thin spherical membranes with contacts", *International Journal of Mechanical Sciences*, Vols. 131-132, pp 334-344, October 2017

Yang Zhou, Arne Nordmark and Anders Eriksson, "Instability investigation for rotating thin spherical membrane", *International Journal of Non-Linear Mechanics*, Vol. 97, pp 96-106, December 2017

Anders Eriksson and Arne Nordmark, "Constrained stability of conservative static equilibrium", *Computational Mechanics*, 2019, <https://doi.org/10.1007/s00466-019-01700-8>