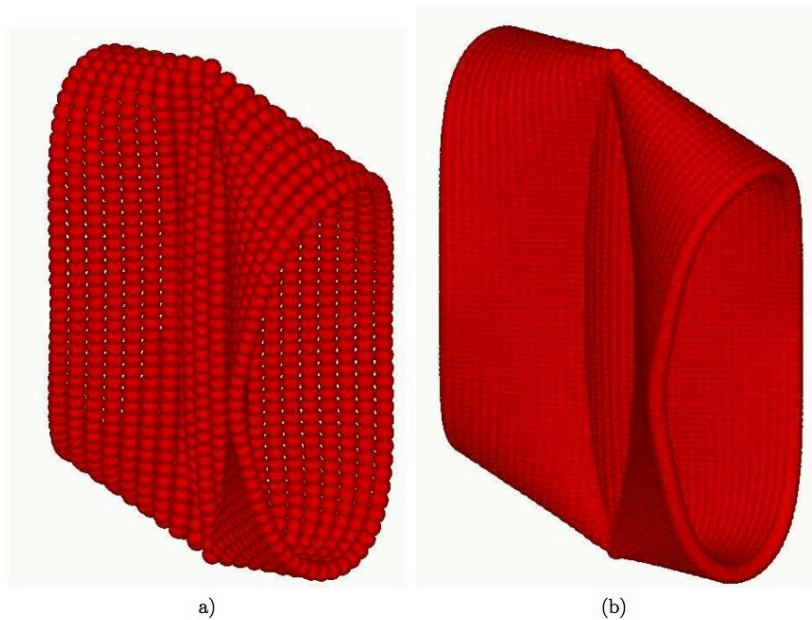**Professor Timon Rabczuk**

Figure 10. Deformed open pullout cylinder for different numbers of particles, a) 1680 particles, b) 6560 particles

From: Rabczuk T, Areias PMA, Belytschko T, "A meshfree thin shell method for nonlinear dynamic fracture", Int J Numer Methods Eng 72: 524–548, 2007

See:
http://www.uni-weimar.de/de/bauingenieurwesen/forschung-und-kunst/institute/institut-fuer-strukturmechanik/team/mitarbeiter/prof-dr-ing-timon-rabczuk/
https://www.researchgate.net/profile/Timon_Rabczuk
http://uni-weimar.academia.edu/TimonRabczuk

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Research Interests:
The research focus of Prof. Rabczuk is Computational Solid Mechanics with emphasis on method development for problems involving fracture and failure of solids and fluid-structure interaction. Prof. Rabczuk is particularly interested in developing multiscale methods and their application to computational materials design. Constitutive Modeling; Material Instabilities, Fracture, Strain Localization; Numerical Methods (Extended Finite Element and Mesfree Methods); Isogeometric Analysis; Computational Fluid-Structure Interaction; Biomechanical Engineering

Selected Publications:
Books:
[1] Rabczuk T., Bordas S., Askes H.: Meshfree discretization methods for solid mechanics, in: Encyclopedia of Aerospace Engineering, Editors: R. De Borst, Wiley & Sons, 2010 (invited)
[2] Rabczuk T., Bordas S., Askes H.: Meshfree Methods for Dynamic Fracture, Computational Technology Reviews (ISSN 2044-8430), 2010, 1, 157-185

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Journal Articles (There are many others not about buckling or thin shells):

T. Rabczuk, T. Belytschko, S.P. Xiao, Stable particle methods based on Lagrangian kernels, Comput. Methods Appl. Mech. Engrg. 193 (2004) 1035–1063

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