



**Professor Pedro M.A. Areias**

See:

<http://orcid.org/0000-0001-6865-1326>

<https://scholar.google.com/citations?user=MeTf3A0AAAAJ&hl=en>

<http://www.researcherid.com/ProfileView.action?returnCode=ROUTER.Unauthorized&queryString=KG0UuZjN5WkG7ztaDcGQKvIuHknY6sER7gxnfAxveQ%253D&SrcApp=CR&Init=Yes>

Computational Mechanics, Department of Physics  
University of Evora, Portugal

**Selected Publications:**

Cesar De Sa, J. M. A., Jorge, R. M. N., Valente, R. A. F., and Areias, P. M. A. (2002). “Development of shear locking-free shell elements using an enhanced assumed strain formulation.” International Journal for Numerical Methods in Engineering, Vol. 53, No. 7, pp. 1721–1750.

P.M.A. Areias, J.M.A. Cesar de Sa and Concelo Antonio. A gradient model for finite strain elastoplasticity coupled with damage. Finite Elements in Analysis and Design, 39: 1191–1235, 2003

P.M.A. Areias. Finite element technology, damage modeling, contact constraints and fracture analysis. Doutoramento, FEUP - Faculdade de Engenharia da Universidade do Porto, Rua Dr. Roberto Frias s/n 4200-465 Porto, Portugal, 2003. [www.fe.up.pt](http://www.fe.up.pt).

Areias, P. M. A., Song, J.-H. and Belytschko, T., “A finite-strain quadrilateral shell element based on discrete Kirchhoff–Love constraints”, International Journal for Numerical Methods in Engineering, Vol. 64, No. 9, November 2005, pp. 1166–1206

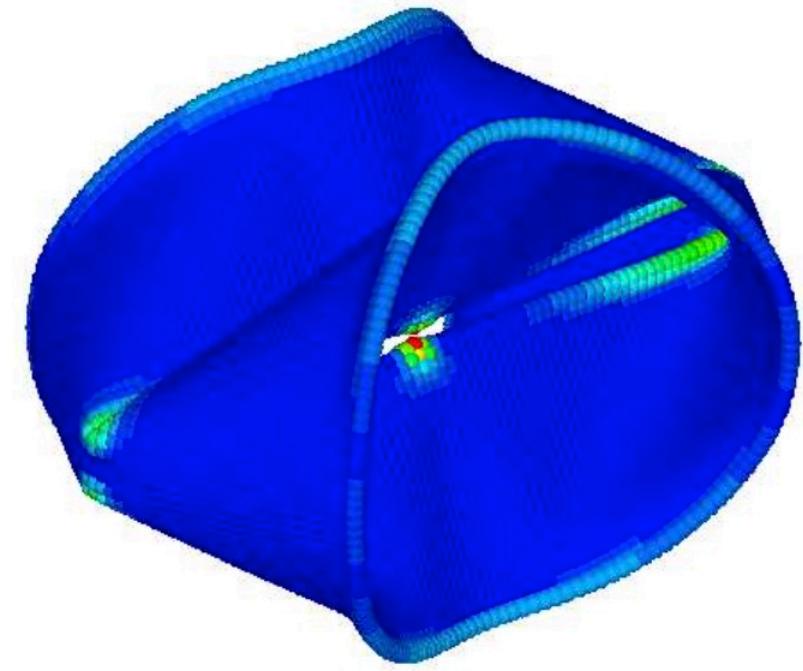


Figure 13. Deformed plastic pinched cylinder with end diaphragms

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

- Areias PMA, Belytschko T. Non-linear analysis of shells with arbitrary evolving cracks using XFEM. *Int J Numer Methods Engng* 2005;62:384–415.
- P.M.A. Areias and T. Belytschko. Analysis of three-dimensional crack initiation and propagation using the extended finite element method. *International Journal for Numerical Methods in Engineering*, 63:760–788, 2005.
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- J-H Song, P.M.A. Areias, and T. Belytschko. A method for dynamic crack and shear band propagation with phantom nodes. *International Journal for Numerical Methods in Engineering*, 2006.
- Rabczuk, T. and Areias, P. (2006). “A meshfree thin shell for arbitrary evolving cracks based on an external enrichment.” *Computer Modeling in Engineering and Sciences*, Vol. 16, No. 2, pp. 115–130.
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- Rabczuk, T., Areias, P. M. A., and Belytschko, T. (2007). “A simplified meshfree method for shear bands with cohesive surfaces.” *International Journal for Numerical Methods in Engineering*, Vol. 69, No. 5, pp. 993–1021.
- N. Nguyen-Thanh, N. Valizadeh, M.N. Nguyen, H. Nguyen-Xuan, X. Zhuang, P. Areias, G. Zi, Y. Bazilevs, L. De Lorenzis, and T. Rabczuk. An extended isogeometric thin shell analysis based on Kirchhoff–Love theory. *Computer Methods in Applied Mechanics and Engineering*, 284:265–291, 2015.