



Figure 1: Distinguishing between "progressive" and "dynamic plastic" buckling,  $D = 30$  mm,  $h = 1.5$  mm,  $\sigma_0 = 175$  MPa (only the thickness of the shell is shown). (a) Undeformed; (b,c)  $V_0 = 30$  m/s,  $E_h = 600$  MPa; (d,e)  $V_0 = 75$  m/s,  $E_h = 180$  MPa; (f,g)  $V_0 = 75$  m/s,  $E_h = 600$  MPa.

From: D. Karagiozova, "'Dynamic plastic' and 'dynamic progressive' buckling of elastic-plastic circular shells – revisited", Latin America Journal of Solids and Structures, Vol. 1, No. 4, 2004, pp. 423-441

## Professor Dora Karagiozova

See:

<http://www.imbm.bas.bg/index.php?page=139>  
<http://www.lajss.org/index.php/LAJSS/article/view/60>  
<http://65.54.113.26/Author/21700621/d-karagiozova>

Professor of Solid Mechanics  
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### Education:

1974 Bsc., Msc. in Applied Mathematics (honor degree), Donetsk Polytechnic, Ukraine  
 1979 Ph.D. in Mechanics of Solids, Institute of Applied Mathematics and Mechanics, Ukrainian Academy of Sciences

### Research Interests:

Behavior of inelastic structures subjected to blast and impact  
 Stability of structural elements under impact

Impact crashworthiness and impact energy absorption  
Stress wave propagation; strain-rate sensitivity  
Mechanical properties of cellular materials  
Discrete modeling of reinforced composites  
Mathematical modeling and numerical simulation , materials and structures

### **Honors and Awards:**

First prize for high scientific achievements during 2002-2004 – awarded by the Association of the Bulgarian Scientists

Honorary Professor – The University of Cape Town (Department of Mechanical Engineering)

Member of the Editorial board of the International Journal of Impact Engineering

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### **Selected Publications:**

Karagiozova, D., Langdon, G.S., Nurick, G.N., Blast attenuation in Cymat foam core sacrificial claddings, Int. J. Mech. Sci., doi:10.1016/j.ijmecsci.2010.02.002

Langdon, G.S., Karagiozova, D., Theobald, M.D., Nurick, G.N., Lu, G., Merrett, R., Mayimele, N., Fracture of aluminium foam core sacrificial cladding subjected to air blast loading, Int. J. Impact Eng, Vol.37(6) pp.638-651 (2010).

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Karagiozova, D., Nurick, G.N., Langdon, G.S., Chung Kim Yuen, S., Chi, Y., Bartle S., Response of flexible sandwich-type panels to blast loading, Composites Science and Technology, Vol. 69 pp. 754-763 (2009).

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Karagiozova, D., Nurick, G.N., Chung Kim Yuen, S., Energy absorption of aluminium alloy circular and square tubes under an axial explosive load. Thin-Walled Struct, Vol. 43, pp. 956-982 (2005).

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