



Professor Oded Rabinovitch

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<http://tx.technion.ac.il/~cvoded/48.html>
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http://technion.ac.il/~sustain/bio/BIO_Rabinovitch.pdf
http://www.researchgate.net/profile/Oded_Rabinovitch
<http://65.54.113.26/Author/12967135>
<http://patents.justia.com/inventor/oded-rabinovitch>

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Structural Engineering and Construction Management
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Research Interests:

Strengthening and retrofitting of existing structures with composite materials;
Smart materials and structures; Active and adaptive structures

Selected Publications:

Frostig Y., and Rabinovitch O., (2000) “Behavior of Sandwich Panels with Multi-skin Construction or a Multi-layered Core – a High-Order Approach”, *Journal of Sandwich Structures and Materials*, 2(3): 181-213.

Rabinovitch, O. and Frostig, Y. (2001) “Non-linear High-Order Analysis of Cracked RC Beams Externally Strengthened with FRP Strips”, *Journal of Structural Engineering*, 127(4): 381-389.

- Rabinovich, O. and Frostig, Y. (2001) "High-Order Analysis of Unidirectional Sandwich Panels with Flat and Generally Curved Faces and a "Soft" Core", *Journal of Sandwich Structures and Materials*, 3(2): 89-116.
- Rabinovitch, O. and Frostig, Y. (2002) "High-Order Behavior of Fully bonded and delaminated Circular Sandwich Plates with Generally Laminated Face sheets and a "Soft" Core", *International Journal of Solids and Structures*, 39(11): 3057-3077.
- Rabinovitch, O., Vinson, J. R., and Frostig, Y. (2003) "High-Order Analysis of Sandwich Panels with Piezoelectric Composite Face-Sheets and a Soft Core", *AIAA Journal*, 41(1)110-118.
- Rabinovitch, O. (2004) "Nonlinear (Buckling) Effects in RC Beams Strengthened with Composite Materials Subjected to Compression", *International Journal of Solids and Structures*, 41(20): 5677-5695.
- Rabinovitch, O. (2005) "Geometrically Nonlinear Behavior of piezoelectric laminated plates", *Smart Materials and Structures*, 14(4): 785-798
- Schwartz-Givli, H, Rabinovitch, O., and Frostig, Y. (2007) "High order nonlinear contact effects in cyclic loading of delaminated sandwich panels", *Composites Part B – Engineering* 38(1): 86-101.
- Schwartz-Givli, H. Rabinovitch, O., and Frostig, Y. (2007) "High Order Nonlinear Contact Effects in the Dynamic Behavior of Delaminated Sandwich Panels with flexible core", *International Journal of Solids and Structures*, 44(1): 77-99.
- Schwartz-Givli, H. Rabinovitch, O., and Frostig, Y. (2007) "Free Vibrations of Delaminated Unidirectional Sandwich Panels with a Transversely Flexible Core – A Modified Galerkin Approach, *Journal of Sound and Vibration* 301(1-2): 253-277
- Hamed, E. and Rabinovitch, O. (2007) "Damping and Viscoelastic Dynamic Response of RC Flexural Members Strengthened with Adhesively Bonded Composite Materials", *Journal of Engineering Mechanics* 133(12): 1279-1289.
- Schwartz-Givli, H. Rabinovitch, O., and Frostig, Y. (2008) "Free Vibration of Delaminated Sandwich Panels with a Transversely Flexible Core and General Boundary Conditions– a High Order Approach", *Journal of Sandwich Structures and Materials* 10(2): 99-131.
- Shufrin, I., Rabinovitch, O., and Eisenberger, M. (2008) "Buckling of symmetrically laminated rectangular plates with general boundary conditions – a semi analytical approach", *Composite Structures* 82(4):521-531.
- Shufrin, I., Rabinovitch, O., and Eisenberger, M. (2008) "A semi-analytical approach for the nonlinear large deflection analysis of laminated rectangular plates under general out-of-plane loading", *International Journal of Nonlinear Mechanics* 43(4): 328-340
- Shufrin, I, Rabinovitch, O., and Eisenberger, M. (2008) "Buckling of laminated plates with general boundary conditions under combined compression, tension, and shear – a semi-analytical solution", *Thin walled structures*, 46(7-9): 925-938

Shufrin, I, Rabinovitch, O., and Eisenberger, M. (2008) "Elastic nonlinear stability analysis of thin rectangular plates through a semi-analytical approach" *International Journal of Solids and Structures*, 46(10): 2075-2092.

Hamed, E. and Rabinovitch, O. (2009) "Modeling and Dynamics of Sandwich Panels with a Viscoelastic Soft Core", *AIAA Journal*, 47(9): 2194-2211.

Rabinovitch, O. (2010) "Buckling-Driven Debonding in Stiff Block – Compliant Joint Structural Assemblies Patched With Composite Materials", *International Journal of Fracture*, 165(1):21-38

Shufrin, I, Rabinovitch, O., and Eisenberger, M. (2010) "A semi-analytical approach for the geometrically nonlinear analysis of trapezoidal and skew plates" *International Journal of Mechanical Sciences*, 52(12) 1588-1596

Elmalich, D. and Rabinovitch, O. (2012) "A High-Order Finite Element for Dynamic Analysis of Soft-Core Sandwich Plates" *Journal of Sandwich Structures and Materials* 14(5): 505-524