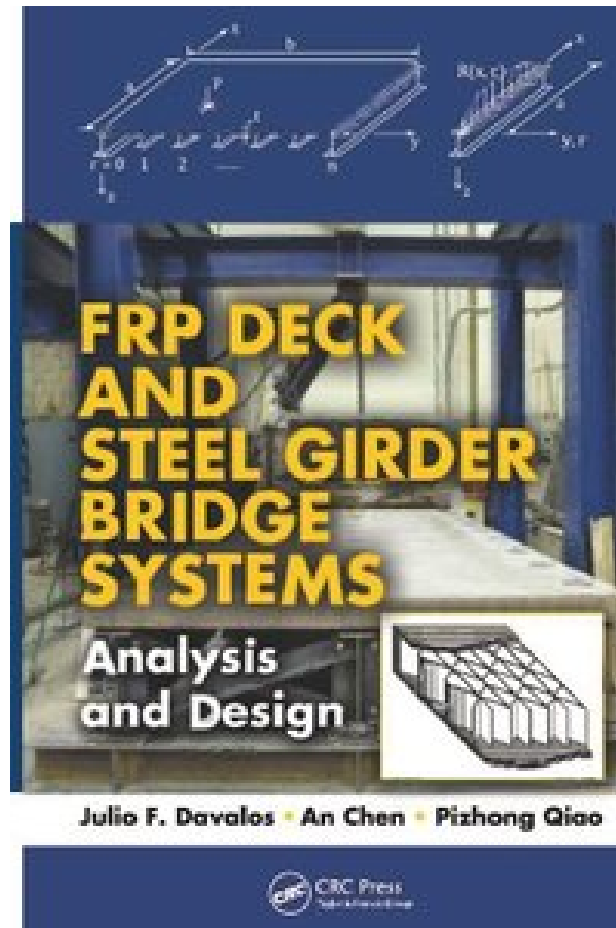




**Professor Julio F. Davalos**



**2013 book by Davalos, et al**

C.W. Benedum Distinguished Teaching Professor  
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**Biography:**

Julio F. Davalos is the C.W. Benedum Distinguished Teaching Professor at WVU and Professor in the Department of Civil and Environmental Engineering. He received his B.S., M.S., and Ph.D. (1989) from Virginia Tech, where he was recognized as Outstanding Young Alumnus in the College of Engineering (1998). He was named Professor of the Year in the State of West Virginia (1998), and he has received numerous teaching and research awards at WVU including, WVU Foundation Outstanding Teacher (1995), three times Researcher of the Year and four times Teacher of the Year Awards from the WVU College of Engineering. His research interests in analytical and experimental structural mechanics are focused on integrated advanced materials for civil infrastructure, and he is also engaged in development of innovative teaching methods and technologies. His publications record includes over 70 journal papers, 110 conference articles and several book chapters and position papers, and his work has been honored with Best Research Paper Award from ASCE (1999), Best Paper Awards from the Composites Institute (1996, 1999), and Best of Conference Paper Award from Modern Plastics Magazine (1999). He lives in Morgantown, WV since 1989 with his wife Cristina, Lecturer in Foreign Languages at WVU, and son Julio G., M.D., surgery resident at Ruby Memorial Hospitals.

**Research Focus:**

Mechanics, advanced materials, structural engineering, and effective teaching methods. Numerical modeling, analysis and experimental testing, stability of large-span reticulated structures, characterization of fiber-reinforced polymer (FRP) and wood composites, interface mechanics of FRP-concrete and FRP-wood bonded assemblies, analysis and design of timber and FRP bridges, high-performance concrete and overlays for bridge decks, FRP raceways for fish culture, and innovative teaching methods and technologies.

**Selected Publications:**

Davalos, J.F., Loferski, J.R., Holzer, S.M. and Yadama, V. Transverse isotropy modeling of 3-D glulam timber beams. *J. Mater. In Civil Engrg* 1991, ASCE, 3(2), 125

Barbero, E.J., Lopez-Anido, R. and Davalos, J.F. On the mechanics of thin-walled laminated composite beams. *J. Compos. Mater.* 1993, 27(8), 806-983

Qiao, P., Davalos, J.F. and Barbero, E.J. FRPBEAM: A computer program for analysis and design of FRP beams, CFC Report, 94-191, Constructed Facilities Center, West Virginia University, Morgantown, WV, 1994

Lopez-Anido, R., Davalos, J.F. and Barbero E.J. Experimental evaluation of stiffness of laminated composite beam elements under flexure. *J. Reinforced Plastics and Composites* 1995, (14), 349

J. F. Davalos, H. A. Salim, P. Qiao, R. Lopez-Anido and E. J. Barbero, "Analysis and design of pultruded FRP shapes under bending", *Composites Part B: Engineering*, Vol. 27, Nos.3-4, 1996, pp. 295-305, Special Issue: Structural Composites in Infrastructures, doi:10.1016/1359-8368(95)00015-1

Kim, Y., Davalos, J. F. and Barbero, E. J. (1996). Progressive failure analysis of laminated composite beams. *Journal of Composite Materials*, 30, p. 536-558.

Madabhusi, P. and J. F. Davalos (1996). "Static Shear Correction Factor for Laminated Rectangular Beams". *Composites: Part B* 27B, pp. 285-293.

Davalos JF, Qiao P, Barbero EJ. Multiobjective material architecture optimization of pultruded FRP I-beams. *Compos Struct* 1996;35(3):271-81.

Davalos, J. F., and Qiao, P. (1997). "Analytical and experimental study of lateral and distortional buckling of FRP wide-flange beams." *J. Compos. for Constr.*, ASCE, 1(4), 150-159

Qiao P, Davalos JF, Barbero EJ. Design optimization of fiber reinforced composite shapes. *J Compos Mater* 1998;32(2):177-96

Julio F. Davalos and Pizhong Qiao, "A computational approach for analysis and optimal design of FRP beams", *Computers & Structures*, Vol. 70, No. 2, January 1999, pp. 169-183, doi:10.1016/S0045-7949(98)00154-0

Qiao, P. Z., Davalos, J. F., Barbero, E. J., and Troutman, D. L. (1999). "Equations facilitate composite designs." *Modern Plastics Mag.*, 76(11), 77–80.

Pizhong Qiao, Julio F. Davalos, and Jialai Wang, "Local Buckling of Composite FRP Shapes By Discrete Plate Analysis", *ASCE Journal of Structural Engineering*, Vol. 127, No. 3, March 2001

Qiao P, Davalos JF, Wang J. Closure to: local buckling of composite FRP shapes by discrete plate analysis. *J Struct Eng—ASCE* 2001;127(3):245–55.

Julio F. Davalos, Pizhong Qiao, X. Frank Xu, Justin Robinson and Karl E. Barth, "Modeling and characterization of fiber-reinforced plastic honeycomb sandwich panels for highway bridge applications", *Composite Structures*, Vol. 52, Nos. 3-4, May-June 2001, pp. 441-452, doi:10.1016/S0263-8223(01)00034-4