



Professor Werner A. Soedel

Werner Soedel, Vibrations of shells and plates (Google eBook), CRC Press, 2004, 553 pages

- See:
- <https://engineering.purdue.edu/ME/People/OME/2013/soedel.html>
 - http://www.barnesandnoble.com/s/%22Werner%20Soedel%22?Ntk=P_key_Contributor_List&Ntx=mode%20matchall
 - https://www.goodreads.com/author/show/1692669.Werner_Soedel
 - <https://www.abebooks.co.uk/book-search/author/werner-soedel-soedel-werner/>

Professor Emeritus, School of Mechanical Engineering
Purdue University, Lafayette, Indiana

Education:
MSME 1965; PhD 1967

Biography:
Dr. Werner Soedel is Professor Emeritus of the School of Mechanical Engineering at Purdue University. He obtained his master's degree and Ph.D. in mechanical engineering from Purdue in 1965 and 1967, respectively. Dr. Soedel joined the Purdue faculty as an Assistant Professor after earning his doctorate and remained there for the entirety of his teaching career. As an active researcher, he has separated himself from his peers by pioneering key analytical, numerical, and experimental methods used in the design and analysis of vibrating continuous systems, compressors, engines, and tires, developing not only fundamental understanding, but aiding the 50 plus companies he regularly worked with on more practical engineering problems. Dr. Soedel's main

interests are in mechanics, particularly in vibrations and dynamics of solids, liquids, and gases. He has published 234 papers in journals and proceedings, one textbook on vibrations of shells and plates, one encyclopedia article, and five short course textbooks on valve dynamics and gas pulsations in machinery. Dr. Soedel is a Fellow of the American Society of Mechanical Engineers and a member of the American Academy of Mechanics, the Acoustical Society of America, the Society of Experimental Stress Analysis, Sigma Xi, Pi Tau Sigma, and Tau Beta Pi Engineering Honor Society. He is a recipient of the Harry L. Solberg Teaching Award twice, the Ruth and Joel Spira Award, and the Ralph Coates Roe Award from the American Society of Engineering Education.

Selected Publications:

Book:

Soedel, W. A.: *Vibrations of Shells and Plates*, Marcel Dekker, New York 1981

Soedel, W. *Vibrations of shells and plates*. Marcel Dekker Inc., 2nd ed., 1993

Soedel, W.: *Vibrations of shells and plates*, Revised and expanded, 2nd Ed., New York: Marcel Dekker (1996)

W. Soedel, *Vibrations of Shells and Plates*, Marcel Dekker, 2004.

Werner Soedel, *Vibrations of shells and plates* (Google eBook), CRC Press, 2004, 553 pages

Journal Articles:

Soedel, W. (1971), "Similitude Approximations for Vibrating Thin Shells," *J. Acoustical Society of America*, Vol. 49, No. 5, pp. 1535–41.

Y. DeEskinazi, W. Soedel and T.Y. Yang (1975). Contact and inflated toroidal membrane with a flat surface as an approach to the tire deflection problem. *J. Tire Sci Technol*, ASME, 3, 43–61.

Soedel W (1980) A new frequency formula for closed circular cylindrical shells for a large variety of boundary conditions. *J Sound Vib* 70:209–217

W. Soedel, "On the dynamic response of rolling tires according to thin shell approximations", *Journal of Sound and Vibration*, Vol. 41, No. 2, pp 233-246

Soedel, W.. Simplified equations and solutions for the vibration of orthotropic cylindrical shells. *Journal of Sound and Vibration* 1983;87(4):555–566.

Charles J. Hunckler, T. Y. Yang and Werner Soedel, "A geometrically nonlinear shell finite element for tire vibration analysis", *Computers & Structures*, Vol. 17, No. 2, 1983, pp. 217-225

Soedel, W. On the vibration of shell with Timoshenko-Mindlin type shear deflections and rotatory inertia. *Journal of Sound and Vibration* 2004;83(1):67–69.