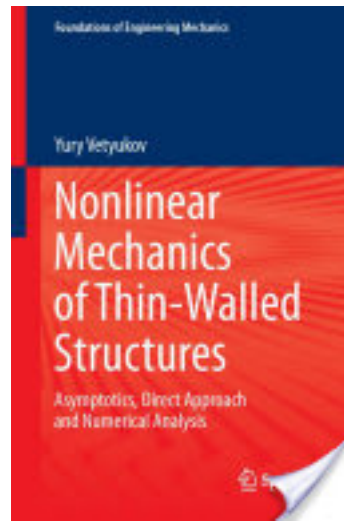




Professor Yury Vetyukov



Yury Vetyukov, Nonlinear Mechanics of Thin-Walled Structures: Asymptotics, Direct Approach and Numerical Analysis, Springer, 2014, 272 pages

See:

https://www.researchgate.net/profile/Yury_Vetyukov

https://www.amazon.com/s?ie=UTF8&page=1&rh=n%3A283155%2Cp_27%3AYury%20Vetyukov

<http://acex-conference.com/Yury%20Vetyukov.pdf>

<https://play.google.com/store/books/author?id=Yury+Vetyukov>

<https://www.wolfram.com/books/search.html?author=Yury+Vetyukov&collection=books>

<https://www.scienceopen.com/user/999dd446-3b0e-4426-9c8c-6e1444ce6bc8/other-publications>

Institute of Mechanics and Mechatronics
Technical University of Vienna

Biography (from <http://acex-conference.com/Yury%20Vetyukov.pdf>):

Yury Vetyukov studied Applied Mechanics at the chair of Mechanics and Control of the Polytechnical University in St. Petersburg and graduated in the year 2000. After obtaining PhD in 2004, he kept researching and teaching at the Polytechnical University until 2008, when he moved to the Johannes Kepler University in Linz, Austria. Currently Yury Vetyukov is working in the research group of Mechanics of Solids at the Institute of Mechanics and Mechatronics of the Vienna University of Technology. His habilitation thesis has recently been submitted to the faculty council and the procedure is currently under way. The research interests of Yury Vetyukov lie mainly in the field of mechanics and numerical modeling of thin-walled structures per se, as well as of more specific problems such as electromechanically coupled behavior of plates and shells, axially moving strings, rods and plates with geometrical and contact types of nonlinearity, etc. Originating from the Russian school of mechanics, he successfully applies in his work such analytical techniques as direct and indexed forms of tensor calculus, principles of Lagrangian mechanics and asymptotic methods. Combined with modern computer technologies, this constitutes a sound basis for novel schemes of simulating the complicated behavior of thin structures. Besides journal articles and book chapters, Yury Vetyukov has authored a monograph “Nonlinear Mechanics of Thin-Walled Structures. Asymptotics, Direct Approach and Numerical Analysis”, which appeared at Springer in 2014.

Selected Publications:

Book:

Yury Vetyukov, *Nonlinear Mechanics of Thin-Walled Structures: Asymptotics, Direct Approach and Numerical Analysis*, Springer, 2014, 272 pages

Journal Articles:

- Krommer M, Vetyukov Y (2009) Adaptive sensing of kinematic entities in the vicinity of a time-dependent geometrically nonlinear pre-deformed state. *Int J Solids Struct* 46(17):3313–3320
- Eliseev V, Vetyukov Y (2010) Finite deformation of thin shells in the context of analytical mechanics of material surfaces. *Acta Mech* 209(1–2):43–57
- Vetyukov Y, Belyaev A (2010) Finite element modeling for coupled electromechanical behavior of nonlinear piezoelectric shells as material surfaces. In: Topping B, Adam J, Pallarés F, Bru R, Romero M (eds) *Proceedings of the tenth international conference on computational structures technology*. Civil-Comp Press, Stirlingshire, p 19
- Vetyukov Y, Krommer M (2010) On the combination of asymptotic and direct approaches to the modeling of plates with piezoelectric actuators and sensors. In *Proceedings of SPIE—The international society for optical engineering*, vol 7647
- Vetyukov Y, Krommer M (2011) Optimal continuous strain-type sensors for finite deformations of shell structures. *Mech Adv Mat Struct* 18(2):125–132
- Vetyukov Y, Kuzin A, Krommer M (2011) Asymptotic splitting in the three-dimensional problem of elasticity for non-homogeneous piezoelectric plates. *Int J Solids Struct* 48(1):12–23
- Vetyukov Y (2014) Finite element modeling of Kirchhoff–Love shells as smooth material surfaces. *Z Angew Math Mech* 94(1–2):150–163
- Eliseev V, Vetyukov Y (2014) Theory of shells as a product of analytical technologies in elastic body mechanics. In: Pietraszkiewicz W, Górski J (eds) *Shell structures: theory and applications*, vol 3. CRC Press, London, pp 81–84
- Yury Vetyukov (Institute of Technical Mechanics, Johannes Kepler University, Linz, Austria), “Mechanics of Thin Elastic Shells”, in *Nonlinear Mechanics of Thin-Walled Structures*, Springer, 2014, pp 113-194
- Y. Vetyukov, Finite element modeling of Kirchhoff-Love shells as smooth material surfaces. *ZAMM*, 94, 150–163, 2014.
- Michael Pieber, Michael Krommer and Yury Vetyukov, “Thin shells with piezoelectric transducers: Theory, numerical modelling and verification”, 7th ECCOMAS Thematic Conference on Smart Structures and Materials (SMART), 2015