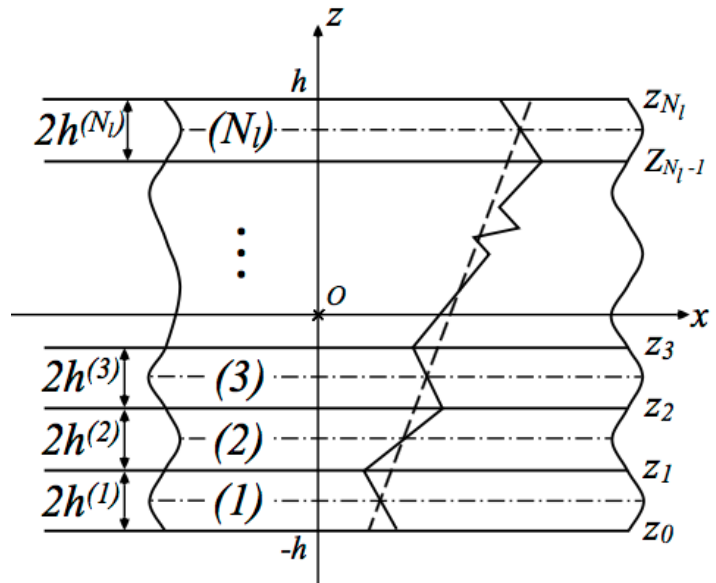




Professor Rainer M.C. Groh



From: Groh, R & Tessler, A, 2017, 'Computationally efficient beam elements for accurate stresses in sandwich laminates and laminated composites with delaminations'. Computer Methods in Applied Mechanics and Engineering, vol 320., pp. 369-395

See:

<http://www.bristol.ac.uk/engineering/people/rainer-m-groh/index.html>

<http://aerospaceengineeringblog.com/contact/>

https://www.researchgate.net/profile/RMJ_Groh/info

<https://scholar.google.com/citations?user=1OaQa1kAAAJ&hl=en>

Bristol Composites Institute (ACCIS), Department of Aerospace Engineering
University of Bristol, UK

Research Interests:

- Numerical analysis & Finite Element Method
- Numerical continuation of structural systems
- Nonlinear Finite Elements
- Variable stiffness structures
- Higher-order plate and shell theories

Selected Publications:

- Madeo, A, Groh, R, Zucco, G, Weaver, PM, Zagari, G & Zinno, R, 2017, 'Post-buckling analysis of variable-angle tow composite plates using Koiter's approach and the finite element method'. Thin-Walled Structures, vol 110., pp. 1-13
- Groh, R & Pirrera, A, 2017, 'Exploring islands of stability in the design space of cylindrical shell structures'. in: Wojciech Pietraszkiewicz, Wojciech Witkowski (eds) Shell Structures: Theory and Applications Volume 4: Proceedings of the 11th International Conference "Shell Structures: Theory and Applications, (SSTA 2017), October 11-13, 2017, Gdansk, Poland. Routledge, pp. 223-226

- Groh, R & Tessler, A, 2017, 'Computationally efficient beam elements for accurate stresses in sandwich laminates and laminated composites with delaminations'. *Computer Methods in Applied Mechanics and Engineering*, vol 320., pp. 369-395
- Thurnherr, C, Groh, RMJ, Ermanni, P & Weaver, PM, 2017, 'Investigation of failure initiation in curved composite laminates using a higher-order beam model'. *Composite Structures*, vol 168., pp. 143-152
- Zucco, G, Groh, R, Madeo, A & Weaver, P, 2016, 'Mixed shell element for static and buckling analysis of variable angle tow composite plates'. *Composite Structures*, vol 152., pp. 324-338
- Groh, R & Weaver, PM, 2016, 'Deleterious localised stress fields: the effects of boundaries and stiffness tailoring in anisotropic laminated plates'. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, vol 472.
- Thurnherr, C, Groh, R, Ermanni, P & Weaver, PM, 2016, 'Higher-order beam model for stress predictions in curved beams made from anisotropic materials'. *International Journal of Solids and Structures*, vol 97-98., pp. 16-28
- RMJ Groh, PM Weaver (2015). A mixed-variational, higher-order zig-zag theory for highly heterogeneous layered structures. 18th International Conference on Composite Structures. Lisbon, Portugal.
- RMJ Groh, PM Weaver (2015). Full-field stress tailoring of composite laminates. IN: *Proceedings of the 20th International Conference on Composite Materials*. Copenhagen, Denmark.
- RMJ Groh, PM Weaver (2015). Mass Optimization of Variable Angle Tow, Variable Thickness Panels with Static Failure and Buckling Constraints. IN: *Proceedings of AIAA SciTech: 56th AIAA/ASME/ASCE/AHS/ASC Structures, structural dynamics and materials conference*. Kissimmee, FL, USA.
- RMJ Groh, PM Weaver (2014). Post-buckling analysis of variable angle, variable thickness panels manufactured by Continuous Tow Shearing. 1st International Conference on Mechanics of Composites. Stony Brook University, USA.
- R.M.J. Groh, P.M. Weaver, Buckling analysis of variable angle tow, variable thickness panels with transverse shear effects, *Composite Structures*, 107 (2014), 482-493
- RMJ Groh, PM Weaver (2013). Buckling analysis of variable angle tow, variable thickness panels with transverse shear effects. IN: *Proceedings of the International Conference on Composite Materials 19*. Montreal, Canada.
- RMJ Groh, PM Weaver (2013). Buckling analysis of variable angle tow, variable thickness panels with transverse shear effects. 17th International Conference on Composite Structures. Porto, Portugal.
- R.M.J. Groh, P.M. Weaver, S. White, G. Raju, Z. Wu, "A 2D equivalent single-layer formulation for the effect of transverse shear on laminated plates with curvilinear fibres", *Compos Struct*, 100 (2013), pp. 464-478