

Veröffentlichungen & Konferenzbeiträge

2014

Walkowiak, M.: Auxetische Strukturierungskonzepte im makroskopischen Skalenbereich – Numerische Untersuchungen zur mechanischen Effizienz multiphysikalisch belasteter zellulärer (Hybrid-)Strukturen. *Shaker Verlag GmbH*, Herzogenrath, ISBN 978-3-8440-2902-4

2013

Obrecht, H., Reinicke, U., Walkowiak, M. (2013): Auxetische Strukturen – Erschließung von Potentialen sphärisch geformter Betonfertigteilelemente. *20. Internationale IFF-Fachtagung*, 13.-14. November, Weimar (DE)

2012

Walkowiak, M. (2012): Auxetische Materialien und Strukturen. *SmartTex-Symposium*, 17. Oktober, Weimar (DE)

Obrecht, H., Reinicke, U., Walkowiak, M. (2012): Impact and blast performance of sandwich panels with cellular honeycomb and lattice cores. *23rd International Congress of Theoretical and Applied Mechanics (ICTAM 2012)*, August 19-24, Beijing (China)

2011

Obrecht, H., Reinicke, U., Walkowiak, M. (2011): Auxetische Strukturen - Neue Wege zu gewichtseffizienten Konstruktionen. *LightweightDesign* 05, S. 37-42

Obrecht, H., Reinicke, U., Walkowiak, M. (2011): Dynamic failure behavior of cellular lattice and sandwich structures. *IUTAM Symposium: Mechanics of Liquid and Solid Foams*, May 8-13, Austin, Texas (USA)

2010

Obrecht, H., Reinicke, U., Walkowiak, M. (2010): Impact and failure performance of sandwich structures with non-/ auxetic lattice cores. *ASME International Mechanical Engineering Congress & Exposition*, November 12-18, Vancouver, British Columbia (Canada)

Obrecht, H., Reinicke, U., Walkowiak, M. (2010): Load-carrying efficiency of hybrid lattice structures. *16th U.S. National Congress of Theoretical and Applied Mechanics (USNCTAM)*, June 27 to July 2, State College, Pennsylvania (USA)

Obrecht, H., Reinicke, U., Walkowiak, M. (2010): Auxetische Strukturen - Neue Wege zu gewichtseffizienten Hochleistungswerkstoffen und -bauteilen. *KooperationsForum „Leichtbau und Hochleistungswerkstoffe“*, 24. März, Dresden (DE)

2009

Obrecht, H., Reinicke, U., Walkowiak, M. (2009): Failure behavior and load-carrying efficiency of lattice structures. *ASME International Mechanical Engineering Congress & Exposition*, November 13-19, Lake Buena Vista, Florida (USA)

Obrecht, H., Reinicke, U., Walkowiak, M. (2009): Thermal buckling and impact performance of lattice structures. *ESMC 7th EUROMECH Solid Mechanics Conference*, September 7-11, Lisbon (Portugal)

Obrecht, H., Reinicke, U., Walkowiak, M. (2009): Thermal buckling and impact resistance of axially loaded lattice structures. *ASCE-ASME-SES Conference on Mechanics and Materials*, June 24-27, Blacksburg, Virginia (USA)

Obrecht, H., Reinicke, U., Walkowiak, M. (2009): Buckling and impact performance of thin-walled lattice structures subjected to thermal and axial loading. *Proceedings of the 50th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics and Materials Conference*, May 4-7, Palm Springs, California (USA)

2008

Obrecht, H., Fuchs, P., Reinicke, U., Rosenthal, B., Walkowiak, M. (2008): Influence of wall constructions on the load-carrying capability of thin-walled structures. *International Journal of Solids and Structures* 45 (6), S. 1513-1535

Obrecht, H., Reinicke, U., Walkowiak, M. (2008): Structural and impact performance of load-carrying lattice structures, *ASME International Mechanical Engineering Congress & Exposition*, October 31 to November 6, Boston, Massachusetts (USA)

Obrecht, H., Reinicke, U., Walkowiak, M. (2008): Neue Wege zu extreme leichten Konstruktionen, *Lunch Workshop HAMTEC*, 14. Oktober, Hamm (DE)

Obrecht, H., Reinicke, U., Walkowiak, M. (2008): Structural and failure performance of load-carrying lattice structures, *XXII International Congress of Theoretical and Applied Mechanics (ICTAM)*, August 24-30, Adelaide (Australia)

Obrecht, H., Reinicke, U., Walkowiak, M. (2008): Impact and failure performance of thin-walled lattice structures. *8th World Congress on Computational Mechanics (WCCM 8), 5th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS)*, 30 June to 4 July, Venice (Italy)

Obrecht, H., Reinicke, U., Walkowiak, M. (2008): Leichtbaukonzepte auf der Basis hybridstrukturierter dünnwandiger Strukturen. *Baustatik-Baupraxis 10, Fachtagung der Lehrstühle und Institute für Statik*, 17.-18. März, Universität Karlsruhe (DE)

2007

Obrecht, H., Reinicke, U., Walkowiak, M. (2007): Load-carrying behavior of corrugated and perforated lightweight structures. *ASME Applied Mechanics and Materials Conference 8 (McMAT 2007)*, June 3-7, Austin, Texas (USA)

2006

Obrecht, H., Fuchs, P., Reinicke, U., Walkowiak, M. (2006): Verbesserte Tragfähigkeit von dünnwandigen Tragwerken durch Hybridbauweise und Flächenstrukturierung. *Stahlbau* 75 (9), S. 737-741.

Obrecht, H., Fuchs, P., Reinicke, U., Walkowiak, M. (2006): Influence of wall construction on the load-carrying behavior of lightweight structures. *15th U.S. National Congress on Theoretical and Applied Mechanics (USNCTAM)*, June 25-30, Boulder, Colorado (USA)

Obrecht, H., Fuchs, P., Walkowiak, M. (2006): Alternative approaches to lightweight construction. *2nd MRS-S Conference on Advanced Materials*, January 18-20, Singapore