



Professor Dr.-Ing. Richard Degenhardt

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<http://www.desicos.eu/>

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DLR German Aerospace Center
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Research areas:

- Whole aircraft design
- Stability of composite structures
- Model building and analysis tools
- Development of fast design tools
- Experimental analysis methods in the area of stability

Structural analysis

Career:

- Since 2008 Professor for Stability of Composite Structures at the Private University of Applied Sciences Göttingen (site Stade), 50% job
- Since 2012 Co-ordinator of the EU project DESICOS, www.desicos.eu
- Since 2010 Technical Manager of the International Forum for Aviation Research (IFAR) and co-ordinator of the EU project IFARs (Support Action for IFAR), www.ifar.aero
- Since 2008 Chairman of the "International Conference Supply on the Wings", which is part of the yearly aerospace fair Airtec, www.airtec.aero
- 2004 - 2008 Co-ordinator of the EU project COCOMAT, www.cocomat.de
- Since 2000 Scientist at DLR, Institute of Composite Structures and Adaptive Systems in the field of Structural Mechanics
- 1996 - 2000 Structural engineer in the company J. Behrens, Wolfenbüttel
- 1990 - 1996 Research assistant at the Institute of Applied Mechanics of the Technical University of Braunschweig, Topic: Development of boundary-element methods and coupling with finite elements, Final degree: PhD
- 1985 - 1990 Study of civil engineering at the Technical University of Braunschweig, Specialisation: mechanics, Statics and Steel structures
- 1985 Abitur

Awards:

- DLR research semester at CRC-ACS in Melbourne, Australia (2005)

Publications:

1. da Cunha, Fabio and Wille, Tobias and Degenhardt, Richard and Sinapius, Michael and de Araujo, Francisco (2012) New Robustness-Based Design Strategy for Thin-Walled Composite Structures. AIRTEC, 06. - 08. Nov. 2012, Frankfurt, Deutschland. Volltext nicht online.
2. Degenhardt, Richard and Szodruch, Joachim and Plass, Simon (2011) IFAR □ The International Forum for Aviation Research. In: Future Aeronautical Communications InTech. pp. 335-348. ISBN 978 953 307 625 6.
3. Szodruch, Joachim and Degenhardt, Richard (2011) IFAR - International Forum for Aviation research. Aeroday 2011, 30. März - 01. April 2011, Madrid, Spanien.
4. Degenhardt, Richard (2011) Improved Exploitation of Composite Airframe Structures by Accurate Simulation of Collapse □ The COCOMAT project. Aeronautics Days, 30. März - 1. April 2011, Madrid, Spanien. Volltext nicht online.
5. Degenhardt, Richard (2011) Auslegung von zukünftigen Flugzeugstrukturen aus CFK bezüglich Stabilität. Ingenieurspiegel, 1/2011, pp. 70-71. Public Verlagsgesellschaft und Anzeigenagentur mbH. ISSN 1868-5919. Volltext nicht online.
6. Degenhardt, Richard (2010) Buckling of Composite Laminated Shells. Imperial College Press. [Other] Volltext nicht online.

7.

Doreille, Mathias and Merazzi, Silvia and Degenhardt, Richard and Rohwer, Klaus (2010) POSTBUCKLING ANALYSIS OF COMPOSITE SHELL STRUCTURES: TOWARD FAST AND ACCURATE TOOLS WITH IMPLICIT FEM METHODS. *International Journal of Structural Stability and Dynamics*, 10 (4), pp. 941-948. Imperial College Press. ISSN 0219-4554. Volltext nicht online.

8.

Kalnins, Kaspars and Rikards, Rolands and Auzins, Janis and Bisagni, Chiara and Abramovich, Haim and Degenhardt, Richard (2010) Metamodeling methodology for postbuckling simulation of Damaged composite stiffened structures with physical validation. *International Journal of Structural Stability and Dynamics*, 10 (4), pp. 705-717. Imperial College Press. ISSN 0219-4554. Volltext nicht online.

9.

Orifici, Adrian C. and Thomson, Rodney S. and Degenhardt, Richard and Bisagni, Chiara and Bayandor, Javid (2010) AN ANALYSIS TOOL FOR DESIGN AND CERTIFICATION OF POSTBUCKLING COMPOSITE AEROSPACE STRUCTURES. *International Journal of Structural Stability and Dynamics*, 10 (4), pp. 669-683. Imperial College Press. ISSN 0219-4554. Volltext nicht online.

10.

Silva, Nuno M.F. and Degenhardt, Richard and Camotim, D. and Silvestre, N. (2010) On the Use of Generalised Beam Theory to assess the Buckling and Post-Buckling Behaviour of Laminated CFRP Cylindrical Stiffened Panels. *International Journal of Structural Stability and Dynamics*, 10 (4), pp. 737-761. Imperial College Press. ISSN 0219-4554. Volltext nicht online.

11.

Wilckens, Dirk and Degenhardt, Richard and Rohwer, Klaus and Zimmermann, Rolf and Kepke, Markus and Hildebrandt, Bernd and Zipfel, Ary (2010) Cyclic buckling tests of pre-damaged CFRP stringer stiffened panels. *International Journal of Structural Stability and Dynamics*, 10 (4), pp. 827-853. Imperial College Press. ISSN 0219-4554. Volltext nicht online.

12.

Degenhardt, Richard and Kling, Alexander and Bethge, Arne and Orf, Jana and K%orger, Luise and Zimmermann, Rolf and Rohwer, Klaus and Calvi, Adriano (2010) Investigations on imperfection sensitivity and deduction of improved knock-down factors for unstiffened CFRP cylindrical shells. *Composite Structures*, 92 (8), pp. 1939-1946. Elsevier Ltd.. DOI: 101016/j.compstruct.2009.12.014. ISSN 0263-8223. Volltext nicht online.

13.

Degenhardt, Richard and Wiedemann, Martin and Hermann, Axel and Baar, Andreas (2010) Challenges in the design of future structures made of CFRP. In: *Tagungsband, ATZ live, -Challenges in the design of future structures made of CFRP*, 15 Seiten, Proceedings bei der Konferenz erschienen. 11th Int. Conference for Car Body Design (Karosseriebautage), 11. -12. Mai 2010, Hamburg, Deutschland. Volltext nicht online.

14.

Lee, M.C.W. and Mikulik, Z. and Kelly, D.W. and Thomson, R. and Degenhardt, Richard (2010) Robust design ,Ä A concept for imperfection insensitive composite structures. *Composite Structures*, 92 (6), pp. 1469-1477. Elsevier Ltd.. DOI: 101016/j.compstruct.2009.09.0549. ISSN 0263-8223. Volltext nicht online.

15.

Arbocz, J. and Bisagni, C. and Calvi, A. and Carrera, E. and Cuntze, R. and Degenhardt, Richard and Gualtieri, N. and Haller, H. and Impollonia, N. and Jacquesson, M. and Jansen, E. and Meyer-Piening, H.-R. and Oery, H. and Rittweger, A. and Rolfes, R. and Schullerer, G. and Turzo, G. and Weller, T. and Wijker, J. (2010) Space engineering - Buckling of structures ECSS-E-HB-32-24A. ESA Requirements and Standards Division. Volltext nicht online.

16.

Lee, M.C.W. and Kelly, D.W. and Degenhardt, Richard and Thomson, R. (2010) A study on the robustness of two stiffened composite fuselage panels. *Composite Structures*, 92 (2), pp. 223-232. Elsevier Ltd.. DOI: 10.1016/j.compstruct.2009.07.009. ISSN 0263-8223. Volltext nicht online.

17.

Orifici, A.C. and Thomson, R.S. and Degenhardt, Richard and Bisagni, C. and Bayandor, J. (2009) A finite element methodology for analysing degradation and collapse in postbuckling composite aerospace structures. *Journal of Composite Materials*, 43 (26), pp. 3239-3263. DOI: 10.1177/0021998309345294. Volltext nicht online.

18.

Degenhardt, Richard (2009) Challenges for a multidisciplinary design of the future aircraft. Conference on Interdisciplinary research at German universities, 16. Okt. 2009, Riga, Latvia. Volltext nicht online.

19.

Degenhardt, Richard (2009) Challenges for a multidisciplinary design of the future aircraft. Conference on Interdisciplinary research at German universities, 16. Okt. 2009, Riga, Latvia. Volltext nicht online.

20.

Degenhardt, Richard and Baars, Andreas (2009) CFK Anwendung im Flugzeugbau und Schiffbau. Schiffahrt meets Luftfahrt

□ Synergieeffekte und ,bergreifende Projekte, 29.10.2009, Hamburg. Volltext nicht online.

21. Degenhardt, Richard (2009) Future Design for Composite Airframe Panels. Asian Aerospace Shenyang Congress, 07.-09. Juli 2009, Shenyang, China. Volltext nicht online.

22. Degenhardt, Richard (2009) New Achievements in Stability of Composite Structures. Asian Aerospace Shenyang Congress, 07.-09. Juli 2009, Shenyang, China. Volltext nicht online.

23. Degenhardt, Richard and Wilckens, Dirk and Rohwer, Klaus and Kepke, Markus and Hildebrandt, Bernd and Zipfel, Ary (2009) Experiments on buckling and postbuckling of thin-walled CFRP structures. 3rd European Conference for Aero-Space Sciences, 06.-09. Juli 2009, Paris, France. Volltext nicht online.

24. Lee, Merrill C.W. and Kelly, Donald W. and Thomson, R.S. and Degenhardt, Richard (2009) ROBUST DESIGN – AN EVOLUTION FOR IMPERFECTION INSENSITIVE COMPOSITE STRUCTURES. 15th International Conference on Composite Structures ICCS 15, 15.-17. Juni 2009, Porto, Portugal. Volltext nicht online.

25. Bruyneel, M. and Degenhardt, Richard and Delsemme, J. (2009) An industrial solution to simulate post-buckling and damage of composite panels. *JEC Composites Magazine*, 48, pp. 38-39. Volltext nicht online.

26. Degenhardt, Richard (2009) New achievements in stability of unstiffened CFRP structures. Int. Conference on Computational & Experimental Engineering and Sciences, 8.-13. April 2009, Phuket, Thailand. Volltext nicht online.

27. Degenhardt, Richard (2009) Strategien für das Maßschneidern von Faserverbundstrukturen in der Luft- und Raumfahrt. Hannover Industrie-Messe, Suppliers Convention, 21. April 2009, Hannover, Deutschland. Volltext nicht online.

28. Kelly, D. and Lee, M.C.W. and Thomson, R.S. and Orifici, A. and Degenhardt, Richard (2009) Collapse Analysis, Defect Sensitivity and Load Paths in Stiffened Shell Composite Structures. Int. Conference on Computational & Experimental Engineering and Sciences, 8.-13. April 2009, Phuket, Thailand. Volltext nicht online.

29. Kelly, D.W. and Lee, M.C.W. and Orifici, A.C. and Thomson, R.S. and Degenhardt, Richard (2009) Collapse Analysis, Defect Sensitivity and Load Paths. *Computers, Materials and Continua*, 10 (2), pp. 163-194. Tech Science Press. ISSN 1546-2218 (print) 1546-2226 (on-line). Volltext nicht online.

30. Kelly, D.W. and Lee, M.C.W. and Orifici, Adrian and Thomson, R.S. and Degenhardt, Richard (2009) Collapse Analysis, Defect Sensitivity and Load Paths. *Computers, Materials and Continua*, 10 (2), pp. 163-194. Tech Science Press. ISSN 1546-2218 (printed), 1546-2226 (online). Volltext nicht online.
31. Degenhardt, Richard (2008) New Achievements in Stability of Composite Structures. *Airtec 3rd Int. Conference "Supply on the Wings"*, 2008-11-11 - 2008-11-13, Frankfurt, Deutschland. (Unpublished) Volltext nicht online.
32. Degenhardt, Richard and Teßmer, Jan and Kling, Alexander (2008) Collapse Behavior of Thin-Walled CFRP Structures due to Material and Geometric Nonlinearities—Experiments and Simulation. In: *ICAS 2008 CD-ROM Proceedings*. ICAS - International Council of the Aeronautical Sciences, 2008-09-14 - 2008-09-19, Anchorage, Alaska (USA). ISBN 0-9533991-9-2. Volltext nicht online.
33. Degenhardt, Richard (2008) CHALLENGES IN THE DESIGN OF FUTURE STRUCTURES MADE OF CFRP. 2nd South African international aerospace symposium, 2008-09-14- 2008-09-16, Stellenbosch, Südafrika. (Unpublished) Volltext nicht online.
34. Caruso, A. and Pietroni, V. and Masiero, E. and Degenhardt, Richard (2008) Material properties, design of structures and degradation models. In: *Proceedings of the 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures*. 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures, 2008-09-03 - 2008-09-05, Braunschweig, Deutschland. Volltext nicht online.
35. Degenhardt, Richard and Wilckens, Dirk and Rohwer, Klaus (2008) Buckling and collapse tests using advanced measurement systems. In: *Proceedings of the 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures*. 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures, 2008-09-03 - 2008-09-05, Braunschweig, Deutschland. Volltext nicht online.
36. Degenhardt, Richard and Wilckens, Dirk and Rohwer, Klaus and Zimmermann, Rolf and Teßmer, Jan (2008) Improved Material Exploitation of Composite Airframe Structures by Accurate Simulation of Collapse - The COCOMAT project. In: *Proceedings of the 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures*. 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures, 2008-09-03 - 2008-09-05, Braunschweig, Deutschland. Volltext nicht online.
37. Lee, M. and Thomsen, R. and Degenhardt, Richard and Kelly, D.W. (2008) A stochastic study on the robustness of a stiffened composite structure. In: *Proceedings of the 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures*. 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures, 2008-09-03 - 2008-09-05, Braunschweig, Deutschland. Volltext nicht online.
38. Orf, Jana and Degenhardt, Richard and Bethge, Arne and Kärger, Luise (2008) The influence of imperfections on the buckling behavior of unstiffened CFRP-cylinders. In: *Proceedings of the 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures*. 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures, 2008-09-03 - 2008-09-05, Braunschweig, Deutschland. Volltext nicht online.
39. Orifici, Adrian and Thomson, R.S. and Degenhardt, Richard (2008) An analysis tool for design and certification of postbuckling composite aerospace structures. In: *Proceedings of the 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures*. 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures, 2008-09-03 - 2008-09-05, Braunschweig, Deutschland. Volltext nicht online.
40. Rikards, R. and Kalnins, K. and Degenhardt, Richard (2008) Overview of slow computational and fast simulation tools developed during the project COCOMAT. In: *Proceedings of the 2nd International Conference*

on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures. 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures, 2008-09-03 - 2008-09-05, Braunschweig, Deutschland. Volltext nicht online.

41. Silva, N.M. and Degenhardt, Richard and Camotim, D. and Silvestre, N. (2008) Application of generalised beam theory to the study of the stability behaviour of laminated CFRP cylindrical stiffened panels. In: Proceedings of the 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures. 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures, 2008-09-03 - 2008-09-05, Braunschweig, Deutschland. Volltext nicht online.

42. Steinmüller, Patrick and Degenhardt, Richard and Rohwer, Klaus (2008) Investigations of axially loaded unstiffened CFRP cylindrical shells subject to single perturbation loads. In: Proceedings of the 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures. 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures, 2008-09-03 - 2008-09-05, Braunschweig, Deutschland. Volltext nicht online.

43. Wang, H. and Büschel, A. and Degenhardt, Richard (2008) Empirical formula for the critical perturbation load. In: Proceedings of the 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures. 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures, 2008-09-03 - 2008-09-05, Braunschweig, Deutschland. Volltext nicht online.

44. Wilckens, Dirk and Degenhardt, Richard and Rohwer, Klaus (2008) IBUCK - A fast simulation tool for the design of CFRP aerospace structures. In: Proceedings of the 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures. 2nd International Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures, 2008-09-03 - 2008-09-05, Braunschweig, Deutschland. Volltext nicht online.

45. Degenhardt, Richard and Rohwer, Klaus and Wilckens, Dirk and Teßmer, Jan (2008) Improved Material Exploitation of Composite Airframe Structures by Accurate Simulation of Collapse – The COCOMAT project. 48th Israel Annual Conference on Aerospace Sciences, 2008-02-27 - 2008-02-28, Tel Aviv, Israel. (Unpublished) Volltext nicht online.

46. Wilckens, Dirk and Degenhardt, Richard and Kepke, Markus and Hildebrandt, Bernd and Rohwer, Klaus and Teßmer, Jan and Gleiter, Andreas (2008) Experiments to detect the damage progress of axially compressed CFRP panels under cyclic loading. 48th Israel Annual Conference on Aerospace Sciences, 2008-02-27 - 2008-02-28, Tel Aviv, Israel. (Unpublished) Volltext nicht online.

47. Orifici, Adrian and Thomson, R.S. and Degenhardt, Richard and Kling, Alexander and Rohwer, Klaus and Bayandor, J. (2008) Degradation investigation in a postbuckling composite stiffened fuselage Panel. Composite Structures, 82 (2), pp. 217-224. Elsevier Ltd.. DOI: 10.1016/j.compstruct.2007.01.012. ISSN 0263-8223. Volltext nicht online.

48. Aschenbrenner, Lars and Baaran, Jens and Degenhardt, Richard and Kärger, Luise and Temmen, Hubert and Teßmer, Jan and Wetzels, Anja (2007) Schlussbericht KRAFT Versagenskriterien und Analyse von Faserverbund-Rumpf-Tragwerken. DLR-Interner Bericht. DLR-IB 131-2007/41, 27 S. Volltext nicht online.

49. Degenhardt, Richard and Bethge, Arne and Kling, Alexander and Zimmermann, Rolf and Rohwer, Klaus and Teßmer, Jan and Calvi, Adriano (2007) Probabilistic approach for improved buckling knock-down factors of CFRP cylindrical shells. First CEAS European Air and Space Conference, 2007-09-10 - 2007-09-13, Berlin, Deutschland. Volltext nicht online.

50. Degenhardt, Richard and Bethge, Arne and Rohwer, Klaus and Zimmermann, Rolf and Kling, Alexander (2007) Probabilistic Approach for better Buckling Knock-down Factors of CFRP Cylindrical Shells -

Tests and Analyses. 18th Engineering Mechanics Division Conference of the American Society of Civil Engineers, 2007-06-03 - 2007-06-06, Blacksburg, Virginia, USA.

51. Degenhardt, Richard and Kling, Alexander and Hillger, Wolfgang and Goetting, Hans Christian and Zimmermann, Rolf and Rohwer, Klaus and Gleiter, Andreas (2007) Experiments on Buckling and Postbuckling of Thin-Walled CFRP Structures using Advanced Measurement Systems. *International Journal of Structural Stability and Dynamics*, 7 (2), pp. 337-358. DOI: 10.1142/S0219455407002253. Volltext nicht online.
52. Rohwer, Klaus and Degenhardt, Richard (2007) Simulating Postbuckling Behaviour and Collapse of Stiffened CFRP Panels. *NAFEMS World Congress 2007*, 2007-05-22 - 2007-05-25, Vancouver, Kanada.
53. Aschenbrenner, Lars and Temmen, Hubert and Degenhardt, Richard (2007) Tailored Fibre Placement Technology – Optimisation and computation of CFRP structures. *Advances in Design and Analysis of Composite Structures - ESAComp Users' Meeting 2007*, 2007-04-24 - 2007-04-25, Braunschweig (Deutschland).
54. Degenhardt, Richard and Teßmer, Jan (2007) Improved Design Scenario for Composite Airframe Structures. *48th AIAA Conference on Structures, Structural Dynamics and Materials*, 2007-0423 - 2007-04-26, Hawaii, USA.
55. Degenhardt, Richard and Teßmer, Jan (2007) New Achievements in Stability of Composite Airframe Structures. In: *Proceedings of the 12th Australian International Aerospace Congress*. 12th Australian International Aerospace Congress, 2007-03-19 - 2007-03-22, Melbourne, Australien.
56. Degenhardt, Richard and Teßmer, Jan (2007) New Achievements in Stability of Composite Airframe Structures. Seminar to the Melbourne Chapter of the ACSS, 2007-03-09, Melbourne, Australien. Volltext nicht online.
57. Degenhardt, Richard and Kling, Alexander and Rohwer, Klaus and Orifici, A. and Thomson, R.S. (2007) Design and Analysis of Stiffened Composite Panels Including Postbuckling and Collapse. *Computers and Structures*. Elsevier Ltd.. DOI: 10.1016/j.compstruc.2007.04.022. ISSN 0045-7949. Volltext nicht online.
58. Orifici, Adrian and Thomson, R.S. and Degenhardt, Richard and Büsing, S. and Bayandor, J. (2007) Development of a Finite Element Methodology for Modelling Mixed-Mode Delamination Growth. *AIAAC12 - 12th Australian International Aerospace Congress*, Melbourne, Australien, AIAAC12 - 12th Australian International Aerospace Congress.
59. Orifici, Adrian and Thomson, R.S. and Degenhardt, Richard and Bisagni, C. and Bayandor, J. (2007) Development of a finite element methodology for the propagation of delaminations in composite structures. *Mechanics of Composite Materials*, 43 (1), pp. 9-28. Springer New York. DOI: 10.1007/s11029-007-0001-7. ISSN 0191-5665 (Print) 1573-8922 (Online). Volltext nicht online.
60. Degenhardt, Richard and Kling, Alexander and Rohwer, Klaus and Orifici, A. and Thomson, R.S. (2007) Design and Analysis of Stiffened Composite Panels Including Postbuckling and Collapse. *Computers and Structures*, 86, pp. 919-929. Elsevier Ltd.. DOI: 10.1016/j.compstruc.2007.04.022. ISSN 0045-7949. Volltext nicht online.
61. Degenhardt, Richard and Wilckens, Dirk and Klein, Herrmann and Kling, Alexander and Hillger, Wolfgang and Goetting, Hans Christian and Rohwer, Klaus and Gleiter, Andreas (2007) Experiments to Detect Damage Progression in Axially Compressed CFRP Panels Under Cyclic Loading. *Key Engineering Materials*, 38, pp. 1-24. Trans Tech Publications Inc.. ISSN 1013-9826. Volltext nicht online.
62. Orifici, Adrian and Thomson, R.S. and Herzberg, I. and Weller, T. and Degenhardt, Richard and Bayandor, J. (2007) An analysis methodology for failure in postbuckling skin-stiffener interfaces. *Composite Structures*, 86, pp. 186-193. Elsevier Ltd.. DOI: doi:10.1016/j.compstruct.2008.03.023. ISSN 0263-8223. Volltext nicht online.

63. Degenhardt, Richard and Kling, Alexander and Rohwer, Klaus (2006) Future design scenario for composite airframe panels. 25th Congress of International Council of the Aeronautical Science, 2006-09-03 - 2006-09-08, Hamburg, Deutschland.
64. Degenhardt, Richard and Wilhelmi, Jens and Grünwald, Alexander (2006) Development and application of a new design tool for aerospace structures. 25th Congress of International Council of the Aeronautical Science, 2006-09-03 - 2006-09-08, Hamburg, Deutschland.
65. Kling, Alexander and Teßmer, Jan and Degenhardt, Richard (2006) Validation procedure for nonlinear analysis of stringer stiffened CFRP Panels. 25th Congress of International Council of the Aeronautical Science, 2006-09-03 - 2006-09-08, Hamburg, Deutschland.
66. Rohwer, Klaus and Degenhardt, Richard (2006) COCOMAT – ein EU-Projekt zur Simulation des Beulverhaltens geschädigter Schalen aus Faserverbundmaterial. Mechanik-Kolloquium "50 Jahre Fachrichtung Angewandte Mechanik, 2006-09-22, Magdeburg, Deutschland.
67. Temmen, Hubert and Degenhardt, Richard and Raible, Tilmann (2006) Tailored fibre placement optimization tool. 25th Congress of International Council of the Aeronautical Science, 2006-09-03 - 2006-09-08, Hamburg, Deutschland.
68. Degenhardt, Richard (2006) Improved Exploitation of Composite Airframe Structures by Accurate Simulation of Collapse - The COCOMAT project. Aeronautics Days 2006, 2006-06-19 - 2006-06-21, Wien, Österreich.
69. Degenhardt, Richard and Rolfes, Raimund and Zimmermann, Rolf and Rohwer, Klaus (2006) COCOMAT—improved material exploitation of composite airframe structures by accurate simulation of postbuckling and collapse. *Composite Structures*, 73 (2), pp. 175-178. Elsevier. Volltext nicht online.
70. Kling, Alexander and Degenhardt, Richard and Zimmermann, Rolf (2006) A hybrid subspace analysis procedure for non-linear postbuckling calculation. *Composite Structures*, 73 (2), pp. 162-170. Elsevier. Volltext nicht online.
71. Orifici, Adrian and Thomson, R.S. and Degenhardt, Richard and Bisagni, C. and Bayandor, J. (2006) Development of a Finite Element Analysis Methodology for the Propagation of Delaminations in Composite Structures. XIV Int. Conference on Mechanics of Composite Materials (MCM), 2006-05-29 - 2006-06-02, Riga, Lettland.
72. Kling, Alexander and Degenhardt, Richard (2006) Characterization of material properties – Results of the EU project COCOMAT. DLR-Interner Bericht. DLR-IB 131-2006/18, 18 S. Volltext nicht online.
73. Winzen, Andrea and Degenhardt, Richard (2006) Simulation of stringer stiffened CFRP panels in consideration of skin-stringer separation. Diploma. DLR-Interner Bericht. DLR-IB 131-2006/04, 155 S.
74. Bethge, Arne and Degenhardt, Richard (2006) Tragwerksanalyse axial gedrückter, versteifter CFK-Paneele mit der FEM - Berechnungen unter Berücksichtigung von Klebeelementen. Diploma. DLR-Interner Bericht. DLR-IB 131-2006/28, 100 S. Volltext nicht online.
75. Degenhardt, Richard (2006) Future Design for Composite Airframe Structures – The Projects POSICOSS and COCOMAT. 4th International Conference on New Aerospace Trends, 2006-10-26 - 2006-10-27, Bilbao, Spanien.
76. Degenhardt, Richard and Kling, Alexander and Rohwer, Klaus (2006) Design and Analysis of Composite Panels. III European Conference on Computational Mechanics, 2006-06-04 - 2006-06-08, Lissabon, Portugal.
77. Gleiter, A. and Riegert, G. and Zweschper, Th. and Degenhardt, R. and Busse, G. (2006) Advanced ultrasound activated Lockin-Thermography for defect selective depth resolved imaging. 28th Thermosense Conference, 2006-04-17 - 2006-04-20, Orlando, Florida (USA). Volltext nicht online.
78. Orifici, Adrian C. and Thomson, Rodney S. and Degenhardt, Richard and Bisagni, Chiara and Bayandor, Javid (2006) Development of a Degradation Model for the Collapse Analysis of Composite

Aerospace Structures. III European Conference on Computational Mechanics, 2006-06-04 - 2006-06-08, Lissabon, Portugal.

79. Degenhardt, Richard and Teßmer, Jan (2005) Advances in Computational Stability Analysis of Composite Aerospace Structures. 23rd CADFEM Users' Meeting, 2005-11-09 - 2005-11-11, Bonn, Deutschland. Volltext nicht online.
80. Orifici, Adrian and Thomson, R.S. and Degenhardt, Richard and Kling, Alexander and Rohwer, Klaus and Bayandor, J. (2005) Degradation investigation in a postbuckling composite stiffened fuselage panel. 13. International Conference of Composite Structures, 2005-11-14 - 2005-11-16, Melbourne, Australien. Volltext nicht online.
81. Degenhardt, Richard and Reinsch, A. (2005) Numerical Finite-Element-Analysis of degradation in stiffened CFRP panels. DLR-Interner Bericht. DLR-IB 131-2005/34, 112 S. Volltext nicht online.
82. Degenhardt, Richard and Kling, Alexander and Schuster, K. (2005) Nichtlineare Tragwerksanalyse axial gedrückter, versteifter CFK-Paneele. DLR-Interner Bericht. DLR-IB 131-2005/32, 95 S. Volltext nicht online.
83. Kling, Alexander and Degenhardt, Richard and Römelt, P. (2005) Entwicklung von axial gedrückten, versteiften CFK-Paneelen unter Schädigungsaspekten. DLR-Interner Bericht. DLR-IB 131-2005/26, 105 S. Volltext nicht online.
84. Araújo, F.C. and Silva, K.I. and Degenhardt, Richard (2005) 3D analysis of coupled thin-walled structural elements by means of standard boundary element formulations. Mechanics and Materials Conference, 2005-06-01 - 2005-06-03, Louisiana, USA.
85. Kling, Alexander and Degenhardt, Richard and Klein, Herrmann and Teßmer, Jan and Zimmermann, Rolf (2005) Novel stability design scenario for aircraft structures – simulation and experimental validation. IASS / IACM 2005: International Conference on Computation of Shell and Spatial Structures, 2005-06-01 - 2005-06-04, Salzburg, Österreich.
86. Degenhardt, Richard and Zimmermann, Rolf and Rolfes, Raimund and Rohwer, Klaus (2005) Improved Material Exploitation of Composite Airframe Structures by Accurate Simulation of Postbuckling and Collapse – The Projects POSICOSS and COCOMAT. 11th Australian International Aerospace Congress, 2005-03-13 - 2005-03-17, Melbourne, Australien.
87. Orifici, Adrian and Thomson, R. and Gunnion, A.J. and Degenhardt, Richard and Abramovich, H. and Bayandor, J. (2005) Benchmark Finite Element Simulations of Postbuckling Composite Stiffened Panels. 11th Australian International Aerospace Congress, 2005-03-13 - 2005-03-17, Melbourne, Australien.
88. Degenhardt, Richard and Delsemme, Jean-Pierre (2005) Buckling and Postbuckling Analysis of a CFRP Stiffened Panel for a better material exploitation. SAMTECH Users Conference, 2005-02-02 - 2005-02-03, Paris, Frankreich.
89. Degenhardt, Richard (2005) Report about the DLR-research semester at CRC-ACS in Melbourne, Australia. DLR-Interner Bericht. DLR-IB 131-2005/42, 19 S. Volltext nicht online.
90. Degenhardt, Richard and Funke, P. (2004) FE-Simulation von axial gedrückten, versteiften CFK-Paneelen. DLR-Interner Bericht. DLR-IB 131-2004/35, 119 S. Volltext nicht online.
91. Degenhardt, Richard and Grünwald, A. (2004) Einfluss lokaler Effekte auf das Tragverhalten von Flugzeugrümpfen. DLR-Interner Bericht. DLR-IB 131-2004/34, 130 S. Volltext nicht online.
92. Degenhardt, Richard and Kling, Alexander and Hansen, L. (2004) Auslegung von axial gedrückten, versteiften Paneelen. DLR-Interner Bericht. DLR-IB 131-2004/37, 91 S. Volltext nicht online.
93. Rolfes, Raimund and Teßmer, Jan and Degenhardt, Richard and Temmen, Hubert and Bürmann, Philipp and Juhasz, Janos (2004) New design tools for lightweight aerospace structures. In: Conference Proceedings. Seventh International Conference on Computational Structures Technology, 2004-09-07 - 2004-09-09, Lissabon, Portugal.

94. Degenhardt, Richard and Rohwer, Klaus and Wagner, W. and Delsemme, J.-P. (2004) Postbuckling and Collapse Analysis of CFRP Stringer Stiffened Panels - a GARTEUR Activity. 4th International Conference on Thin- Walled Structures, 2004-06-22 - 2004-06-24, Loughborough, England. Volltext nicht online.
95. Kling, Alexander and Degenhardt, Richard and Zimmermann, Rolf (2004) Postbuckling Analysis of CFRP Stringer Stiffened Panels - Development of a fast Design Tool. Intern. Conference on Buckling and Postbuckling Behaviour of Composite Laminated Shell Structures, 2004-03-01 - 2004-03-02, Eilat, Israel. Volltext nicht online.
96. Degenhardt, R. and Rolfes, R. and Zimmermann, R. and Rohwer, K. (2004) COCOMAT - Improved Material Exploitation at Safe Design of Composite Airframe Structures by Accurate Simulation of Collapse. In: CD: Folienvortrag, International Conference on Buckling and Postbuckling Behavior of Composite Laminated Shell Structures, pp. 1-17. International Conference on Buckling and Postbuckling Behavior of Composite Laminated Shell Structures, Eilat, Israel, 1/2 März 2004. Volltext nicht online.
97. Möcker, T. and Reimerdes, H.-G. and Degenhardt, R. and Zimmermann, R. (2004) Postbuckling Analysis of CFRP Stringer Stiffened Panels - Benchmarking and Development of Fast Tools. In: CD: Folienvortrag, pp. 1-22. International Conference on Buckling and Postbuckling Behavior of Composite Laminated Shell Structures, Eilat, Israel, 1/2 März 2004. Volltext nicht online.
98. Degenhardt, Richard and Kling, Alexander and Mündel, J. (2003) FE-Simulation eines axial gedrückten, versteiften CFK-Paneels. DLR-Interner Bericht. DLR-IB 131-2004/36, 119 S. Volltext nicht online.
99. Degenhardt, Richard (2003) Postbuckling and Collapse Analysis - Benchmark 3 Evaluation Report and Collected Contributions. DLR-Interner Bericht. DLR-IB 131-2003/29, 196 S. Volltext nicht online.
100. Degenhardt, Richard (2003) Postbuckling and Collapse Analysis – Benchmark 3 Evaluation Report and Collected Contributions. DLR-Interner Bericht. DLR-IB 131-2003/29, 196 S. Volltext nicht online.
101. Tessmer, Jan and Degenhardt, Richard and Kling, Alexander and Rolfes, Raimund and Spröwitz, Tom and Waitz, Stefan (2003) Virtual Testing of Aircraft Structures, considering Postcritical and Thermal Behavior. Composit Thematic Network Workshop on Modeling and Prediction of Composite Transport Structures, 2003-06-30, Zaragoza, Spanien.
102. Kling, A. and Degenhardt, R. (2001) Nachbeulverhalten von Flugzeugrumpfschalen. In: 13. deutschsprachiges ABAQUS Anwendertreffen, pp. 1-9. ABACOM Software GmbH. 13. deutschsprachiges ABAQUS Anwendertreffen, Freiburg, 24.-25. September 2001. Volltext nicht online.