

**Publications of
Jan Helge Bøhn
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ResearchGate

365 citations, RG score = 17.82

Book chapters

[1] Jan Helge Bøhn and Arvid Myklebust, "Computer-aided engineering," in: *Encyclopedia of Science & Technology*, 10th edition, Vol. 4, McGraw-Hill, 2007, pp. 549-554. ISBN-10: 0071441433, ISBN-13: 978-0071441438. <http://www.accessscience.com/content/computer-aided-engineering/153860>

Papers in refereed journals

[1] Hyung Nam Kim*, Tonya Smith-Jackson, and Jan Helge Bøhn, "Haptic Perception of Older Adults with Low Vision and Haptic User Interface Needs," *Gerontechnology*, vol. 10, no. 2, 2011, pp. 72-89. doi:10.4017/gt.2011.10.2.002.00.

[2] Jan Helge Bøhn, "Two Approaches to Global Student Design Projects," in: Shan-Dong Tu and Zheng-Dong Wang (eds.), *Total Engineering Education*, East China University of Science and Technology Press, Shanghai, China, 2006, pp. 193-199. ISBN: 978-7-5628-1985-1.

[3] Asli Sahin*, Maria Bøe*, Janis Terpenney, and Jan Helge Bøhn, "A Study to Understand Perceptual Discrepancies Using Visual Illusions and Data Envelopment Analysis (DEA)," *Journal of Mechanical Design*, vol. 129, July 2007, pp. 744-752. doi:10.1115/1.2722321.

[4] Michael J. Furey, Brian Vick, Hamid M. R. Ghasemi*, and Jan Helge Bøhn, "Coalescence and breakup of contact areas: Effects on surface temperatures," *Tribology International*, vol. 40, no. 4, April 2007, pp. 595-600. doi:10.1016/j.triboint.2005.11.017.

[5] Alain Giroux*, Jeryl C. Jones, Jan Helge Bøhn, Robert B. Duncan, Don R. Waldron, and Karen R. Inzana, "A New device for Stereotactic CT-Guided Biopsy of the Canine Brain: Design, Construction, and Needle Placement Accuracy," *Veterinary Radiology & Ultrasound*, vol. 43, no. 3, May/June 2002, pp. 229-236. doi:10.1111/j.1740-8261.2002.tb00995.x.

[6] Justin Tyberg* and Jan Helge Bøhn, "FDM Systems and Local Adaptive Slicing," *Materials and Design*, vol. 20, no. 2/3, June 1999, pp. 77-82. doi:10.1016/S0261-3069(99)00012-6. One of eleven papers selected from the 1998 Solid Freeform Fabrication Symposium (95 papers were presented).

[7] Robert W. Gray IV*, Donald G. Baird, and Jan Helge Bøhn, "Thermoplastic Composites Reinforced With Long Fiber Thermotropic Liquid Crystalline Polymers for Fused Deposition Modeling," *Polymer Composites*, August 1998, vol. 19, no. 4, pp. 383-394. doi:10.1002/pc.10112.

[8] Justin Tyberg* and Jan Helge Bøhn, "Local adaptive slicing," *Rapid Prototyping Journal*, vol. 4, no. 3, 1998, pp. 118-127. doi:10.1108/13552549810222993. One of four papers selected from the 1998 European Conference of Rapid Prototyping and Manufacturing (38 papers were presented of 65 submitted).

[9] Robert W. Gray IV*, Donald G. Baird, and Jan Helge Bøhn, "Effects of processing conditions on short TLCP fiber reinforced FDM parts," *Rapid Prototyping Journal*, vol. 4, no. 1, 1998, pp. 14-25. doi:10.1108/13552549810197514.

[10] Emmanuel Sabourin*, Scott A. Houser*, and Jan Helge Bøhn, “Accurate exterior, fast interior layered manufacturing,” *Rapid Prototyping Journal*, vol. 3, no. 2, 1997, pp. 44-52. doi:10.1108/13552549710176662. One of four papers selected from the 1997 European Conference of Rapid Prototyping and Manufacturing (31 papers were presented of 45 submitted).

[11] Jan Helge Bøhn, “Integrating rapid prototyping into the engineering curriculum – a case study,” *Rapid Prototyping Journal*, vol. 3, no. 1, 1997, pp. 32-37. doi:10.1108/13552549710169264. Revised version of paper presented at the 1996 Conference on University Programs in Computer Aided Engineering, Design and Manufacturing.

[12] Emmanuel Sabourin*, Scott A. Houser*, and Jan Helge Bøhn, “Adaptive slicing using stepwise uniform refinement,” *Rapid Prototyping Journal*, vol. 2, no. 4, 1996, pp. 20-26. doi:10.1108/13552549610153370.

[13] Jan Helge Bøhn, “Removing Zero-Volume Parts from CAD Models for Layered Manufacturing,” *IEEE Computer Graphics & Applications*, vol. 15, no. 6, November 1995, pp. 27-34. doi:10.1109/38.469518.

[14] Jan Helge Bøhn and Michael J. Wozny, “A Topology-Based Approach for Shell-Closure,” in: Peter R. Wilson et al. (eds.), *Geometric Modeling for Product Realization*, IFIP Transactions B-8, Elsevier Science Publishers B.V. (North-Holland), Amsterdam, 1993, pp. 297-319. ISBN 0-444-81662-3.

Papers in refereed conference proceedings

[1] Manfred J. Hampe, Jan Helge Bøhn, and David J. Dixon, “Introduction to German Engineering: A Transatlantic Experience,” *Proc., 2013 ASEE Annual Conference & Exposition*, Atlanta, Georgia, June 23-26, 2013, paper AC 2013-7371, 7 pages.

<http://www.asee.org/public/conferences/20/papers/7371/view>

[2] Jan Helge Bøhn and Manfred J. Hampe, “Lessons Learned with Transatlantic Undergraduate Engineering Dual Degree Program,” *Proc., 2012 ASEE Global Colloquium on Engineering Education*, Buenos Aires, Argentina, October 15-18, 2012, paper 474, 14 pages.

<http://www.weef2012.edu.ar/papersFinal/show.php?doc=474>

[3] Jan Helge Bøhn and Manfred J. Hampe, “Lessons Learned with Transatlantic Undergraduate Engineering Dual Degree Program,” *Proc., 2012 ASEE Annual Conference & Exposition*, San Antonio, Texas, June 10-13, 2012, paper AC 2012-5255, 15 pages.

<http://www.asee.org/public/conferences/8/papers/5255/download>

[4] Pedro Orta and Jan Helge Bøhn, “Automotive Global Collaborative Engineering Course,” *Proc., 2009 SAE World Congress & Exhibition*, Detroit, Michigan, USA, April 20-23, 2009. 8 pages. Paper 2009-01-0363.

[5] Manfred J. Hampe, Lars A. Hagman, and Jan Helge Bøhn, “Transatlantic Dual Bachelor’s Degree Programs between two European and one American University,” *Proc., 2007 ASEE Annual Conference & Exposition*, Honolulu, Hawaii, June 24-27, 2007. 14 pages. CD-ROM paper AC 2007-1830.

[6] Jan Helge Bøhn and Manfred J. Hampe, “Study Abroad Programs in Mechanical Engineering,” *Proc., 5th ASEE Global Colloquium on Engineering Education*, Rio de Janeiro, Brazil, October 9-12, 2006. 12 pages. CD-ROM paper GC 2006-235. Invited paper.

- [7] Jan Helge Bøhn and Manfred J. Hampe, "Study Abroad Programs in Mechanical Engineering," *Proc., 2006 ASEE Annual Conference & Exposition*, Chicago, Illinois, June 18-21, 2006. 12 pages. CD-ROM paper 2006-1619.
- [8] Jan Helge Bøhn and Reiner Anderl, "A First Transatlantic Course on Collaborative Engineering and Product Data Management," *Proc., 2005 PACE Annual Forum*, Mexico City, Mexico, July 27-30, 2005. 9 pages. (50% acceptance rate)
- [9] C. Greg Jensen, Clay Dean, Jan Helge Bøhn, and John Marshall, "Using Collaboration and PLM Tools to Link Remote Capstone Team Members," *Proc., 2005 PACE Annual Forum*, Mexico City, Mexico, July 27-30, 2005. 21 pages. (50% acceptance rate)
- [10] Jan Helge Bøhn and Reiner Anderl, "Transatlantic Course on 24/7 Collaborative Engineering and Product Data Management," *Proc., 2005 ASEE Southeast Section Annual Conference*, Chattanooga, Tennessee, April 3-5, 2005. CD ROM, 9 pages.
- [11] Jan Helge Bøhn, "Accelerating PACE to the Next Level: Preparing for Transatlantic Collaborative Engineering," *Proc., 9th International Seminar on High Technology*, Methodist University of Piracicaba, Brazil, October 14, 2004, pp. 69-83. Invited keynote paper.
- [12] Sai SundaraKrishhna*, Hongman Kim, Jan Helge Bøhn, and Brett Malone, "A Scalable Intelligent Distributed Component Architecture using Cooperative Agents for Multi-objective Optimization and Decision Making," *Proc., 11th International Conference on Advanced Computing and Communications*, PSG College of Technology, Coimbatore, India, December 17-20, 2003. CD ROM, 9 pages. One of 55 papers selected from approximately 250 submitted. Best poster presentation award.
- [13] Jonah Zhou Chen*, Yingxiang Wu*, Christelle Gence*, Dushan Boroyevich, and Jan Helge Bøhn, "Integrated Electrical and Thermal Analysis of Power Electronics Modules Using iSIGHT," *Proc., 16th IEEE Applied Power Electronics Conference and Exposition*, APEC 2001, Anaheim, California, March 4-8, 2001, pp. 1002-1006. Also published in: *Proc., 2001 CPES Annual Power Electronics Seminar*, Blacksburg, Virginia, April 23-25, 2001, pp. 141-145.
- [14] Thomas Walker and Jan Helge Bøhn, "Pulling the Plug on the Pedagogical Pacifier by Placing Programming Courses Online," *Proc., 2000 ASEE Annual Conference & Exposition*, St. Louis, Missouri, June 18-21, 2000.
- [15] Justin Tyberg* and Jan Helge Bøhn, "Local Adaptive Slicing," *Proc., 7th European Conference on Rapid Prototyping and Manufacturing*, Aachen, Germany, July 7-9, 1998, pp. 127-143.
- [16] Janis P. Terpenney*, Bartholomew O. Nnaji, and Jan Helge Bøhn, "Blending Top-Down and Bottom-Up Approaches in Conceptual Design," *Proc., 7th Annual Industrial Engineering Research Conference*, IERC7, Banff, Alberta, Canada, May 9-10, 1998. CD-ROM (track 07 su 03)
- [17] Robert W. Gray IV*, Donald G. Baird, and Jan Helge Bøhn, "Effects of Processing Conditions on Parts Reinforced with Short Fiber Thermotropic Liquid Crystalline Polymers Generated by Rapid Prototyping Techniques," *Proc., 56th Annual Technical Conference of the Society of Plastics Engineers*, ANTEC'98, Atlanta, Georgia, April 26 - May 1, 1998. CD-ROM (paper #191)
- [18] Emmanuel Sabourin*, Scott A. Houser*, and Jan Helge Bøhn, "Accurate Exterior, Fast Interior Layered Manufacturing," *Proc., 6th European Conference on Rapid Prototyping and Manufacturing*, The University of Nottingham, England, July 1-3, 1997, pp. 105-117.

[19] Jan Helge Bøhn, "An Inexpensive Course on Layered Manufacturing and Rapid Prototyping," *Proc., 16th ASME Computers in Engineering Conference*, Irvine, California, August 18-22, 1996. CD-ROM (paper 96-DETC/CIE-1430)

[20] Jan Helge Bøhn, "Graphics Application Programming Development: In Support of The Virtual Thesis," *Proc., 15th ASME Computers in Engineering Conference*, Boston, Massachusetts, September 17-21, 1995, pp. 469-473.

Papers presented at professional meetings

[1] Jan Helge Bøhn and Manfred J. Hampe, "Learning German to Study Engineering Abroad," *Proc., 9th Annual ASEE Global Colloquium on Engineering Education*, Singapore, October 18-21, 2010, paper 2010-179, 7 pages.

[2] Brent K. Jesiek, Yating Chang, E. Mourad Ouzzani, Ali Roumani, E. Daniel Hirleman, and Jan Helge Bøhn, "Supporting an International Research and Education in Engineering (IREE) Program Through the GlobalHUB Cyber Community for Global Engineering," *Proc., 9th Annual ASEE Global Colloquium on Engineering Education*, Singapore, October 18-21, 2010, paper 2010-164, 9 pages.

[3] Jan Helge Bøhn and Manfred J. Hampe, "The Design and Development of a Transatlantic Dual BSME Degree Program," *Proc., 7th Annual ASEE Global Colloquium on Engineering Education*, Cape Town, South Africa, October 19-23, 2008, paper 2008-256, 11 pages.

[4] Mourad Ouzzani, Jan Helge Bøhn, Debashish Dutta, Eckhard A. Groll, E. Daniel Hirleman, Juan C. Lucena, "GlobalHUB: A Virtual Community for Global Engineering Education, Research, and Collaboration," *Proc., 7th Annual ASEE Global Colloquium on Engineering Education*, Cape Town, South Africa, October 19-23, 2008, paper 2008-245, 10 pages.

[5] Susanne R. Schmidt* and Jan Helge Bøhn, "Global Collaborative Engineering Design: From a Student's Perspective," *Proc., 2007 PACE Global Annual Forum*, Darmstadt, Germany, July 25-27, 2007.

[6] Maria Bøe*, Jan Helge Bøhn, and Reiner Anderl, "Utilizing Visual Illusions to Identify and Understand Perceptual Discrepancies in Product Design," *Proc., 2006 PACE International Forum on Collaborative Visualization*, Darmstadt, Germany, November 15-17, 2006, pp. 189-199. ISBN: 10-3-00-020161-0, 13-978-3-00-020161-5.

[7] Jan Helge Bøhn, "Two Approaches to Global Student Design Projects," *Proc., Symposium on Multi-/Inter-Disciplinary Engineering Education*, Shanghai, China, August 16-19, 2006. 6 pages.

[8] Jan Helge Bøhn, "Towards Rapid Manufacturing Using Polymer Fabrication Systems," *Proc., Indo-US Workshop on Rapid Manufacturing*, Bangalore, India, April 17-19, 2006. 9 pages.

[9] Jan Helge Bøhn, Walter F. O'Brien, and Kenneth S. Ball, "From Ad Hoc to Systematic Study Abroad," *Proc., 2006 International Mechanical Engineering Education Conference*, Beijing, China, March 31 - April 4, 2006. 6 pages. <http://files.asme.org/asmeorg/Education/College/9698.pdf>

[10] Jan Helge Bøhn and Reiner Anderl, "Issues in Global Collaborative Design and Engineering within an Academic Setting," *Proc., International PACE Forum on Digital Manufacturing*, Darmstadt, Germany, November 7-9, 2005. 6 pages.

- [11] Reiner Anderl and Jan Helge Bøhn, "Collaborative Engineering," in: H. Bley, H. Jansen, F.-L. Krause, and M. Shpitalni, eds., *Advances in Methods and Systems for Products and Processes*, Proc., German-Israeli Symposium for Design and Manufacture, Berlin, Germany, July 7-8, 2005, pp. 211-217.
- [12] Reiner Anderl, Arndt Ufer*, and Jan Helge Bøhn, "Technical Issues on the Transatlantic Educational Use of Teamcenter Community," *Proc., 2005 PLM World*, Dallas, Texas, May 2-6, 2005. CD ROM, 9 pages.
- [13] Michael J. Furey, Brian Vick, Hamid M. R. Ghasemi*, and Jan Helge Bøhn, "Breakup, Coalescence and motion of Sliding Contacts: Contact Areas and Surface Temperatures," *Proc., 11th Nordic Symposium on Tribology*, NORDTRIB 2004, Tromsø, Norway, June 1-5, 2004.
- [14] Tinting Sang*, Yingxiang Wu*, Fred C. Lee, W. G. Odendaal, and Jan Helge Bøhn, "An Iterative Approach for Integrated Electro-Thermal Design of a Distributed Power Supply Systems Module," *Proc., 2003 CPES Annual Power Electronics Seminar*, Blacksburg, Virginia, April 27-29, 2003, pp. 304-307.
- [15] Yingxiang Wu*, Jonah Chen*, Ying-feng Pang*, Jan Helge Bøhn, Dushan Boroyevich, and Elaine P. Scott, "Automation of Multidisciplinary IPEM Modeling, Design and Analysis," *Proc., 2003 CPES Annual Power Electronics Seminar*, Blacksburg, Virginia, April 27-29, 2003, pp. 635-638.
- [16] Yingxiang Wu*, Jan Helge Bøhn, and Dushan Boroyevich, "Verifying Changes to STEP AP210 for IPEM Modeling," *Proc., 2003 CPES Annual Power Electronics Seminar*, Blacksburg, Virginia, April 27-29, 2003, pp. 676-679.
- [17] Yingxiang Wu*, Jan Helge Bøhn, and Dushan Boroyevich, "Software Integration for IPEM Design, Modeling, and Analysis," *Proc., 2002 CPES Annual Power Electronics Seminar*, Blacksburg, Virginia, April 14-18, 2002, pp. 539-542.
- [18] Jonah Zhou Chen*, Yingxiang Wu*, Christelle Gence*, Li Ma*, Dushan Boroyevich, and Jan Helge Bøhn, "Integrated Electrical and Thermal Analysis of Integrated Power Electronics Modules Using iSIGHT," *Proc., 2001 CPES Annual Power Electronics Seminar*, Blacksburg, Virginia, April 23-25, 2001, pp. 141-145. Also published in: *Proc., 16th IEEE Applied Power Electronics Conference and Exposition*, APEC 2001, Anaheim, California, March 4-8, 2001, pp. 1002-1006.
- [19] Yingxiang Wu*, Jonah Zhou Chen*, Christelle Gence*, Li Ma*, Jan Helge Bøhn, and Dushan Boroyevich, "Describing Power Electronics Systems using STEP AP210," *Proc., 2001 CPES Annual Power Electronics Seminar*, Blacksburg, Virginia, April 23-25, 2001, pp. 539-542.
- [20] Jonah Zhou Chen*, Yingxiang Wu*, Dushan Boroyevich, and Jan Helge Bøhn, "Integrated Electrical and Thermal Modeling and Analysis of IPEMs," *Proc., 7th Workshop on Computers in Power Electronics, COMPEL 2000*, Blacksburg, VA, July 16-18, 2000, pp. 24-27. Also published in: *Proc., 2000 CPES Annual Power Electronics Seminar*, Blacksburg, Virginia, September 17-19, 2000, pp. 170-173.
- [21] Vinod Lohani, Jan Helge Bøhn, Thomas Walker, and Pat Devens, "Online Problem Solving (with C++) Course for Engineering Students: Successes & Failures," *Proc., 2000 Joint Conference on Water Resource Engineering and Water Resource Planning & Management*, American Society of Civil Engineers, Minneapolis, Minnesota, July 30-August 2, 2000.

- [22] Alain Giroux*, Jeryl Jones, Jan Helge Bøhn, Don Waldron, Robert Duncan, and Karen Inzana, "Accuracy of a New Stereotactic Device for CT-guided Biopsy of the Canine Brain," *Proc., Annual Scientific Meeting (CT/MR Session)*, American College of Veterinary Radiology, Chicago, Illinois, December 1-5, 1999. *Veterinary Radiology & Ultrasound*, November-December 1999, vol. 40, no. 6, pg. 664. http://www.acvr.ucdavis.edu/meetings/chicago99/abstracts/ct_mr/giroux.html
- [23] Øivind Brockmeier*, Christopher Westcott*, and Jan Helge Bøhn, "Automated Loading and Unloading of FDM Systems," *Proc., 10th Solid Freeform Fabrication Symposium*, The University of Texas at Austin, August 9-11, 1999, pp. 679-686.
- [24] Jan Helge Bøhn, Donald G. Baird, and Wayde R. Schmidt, "Rapid Prototyping and Tooling Using Fiber Composites," *Proc., Composites '99 Manufacturing & Tooling Conference*, Society of Manufacturing Engineers, Anaheim, California, February 8-10, 1999.
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- [26] Justin Tyberg* and Jan Helge Bøhn, "Calibrating Fused Deposition Modeling Rapid Prototyping Systems for Adaptive Build Layer Thicknesses," *Proc., 3rd Pacific Rim International Conference on Advanced Materials and Processing*, PRICM3, Honolulu, Hawaii, July 12-16, 1998, vol. 1, pp. 1573-1579.
- [27] Robert W. Gray IV*, Donald G. Baird, and Jan Helge Bøhn, "Effects of Processing Conditions on PP Systems Reinforced with TLCs for Fused Deposition Modeling," *Proc., 8th Solid Freeform Fabrication Symposium*, The University of Texas at Austin, August 11-13, 1997, pp. 449-456.
- [28] Kurt Elkins*, Howard Nordby*, Christopher Janak*, Robert W. Gray IV*, Jan Helge Bøhn, and Donald G. Baird, "Soft Elastomers for Fused Deposition Modeling," *Proc., 8th Solid Freeform Fabrication Symposium*, The University of Texas at Austin, August 11-13, 1997, pp. 441-448.
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- [30] Vinícius Medina Kern*, Jan Helge Bøhn, and Ricardo Miranda Barcia, "The Building of Information Models in STEP," *Proc., 2nd International Congress of Industrial Engineering*, Piracicaba, SP, Brazil, October 7-10, 1996. CD-ROM
- [31] Jan Helge Bøhn, "Integrating Rapid Prototyping into the Engineering Curriculum," *Proc., Conference on University Programs in Computer Aided Engineering, Design and Manufacturing*, UPCAEDM'96, University of Virginia, Charlottesville, Virginia, June 27-29, 1996.
- [32] Vinícius Medina Kern* and Jan Helge Bøhn, "STEP Databases for Product Data Exchange," *Proc., 1st International Congress of Industrial Engineering*, São Carlos, SP, Brazil, September 4-7, 1995, vol. 3, pp. 1337-1341.
- [33] Jan Helge Bøhn and Michael J. Wozny, "Automatic CAD-Model Repair: Shell-Closure," *Proc., 3rd Solid Freeform Fabrication Symposium*, The University of Texas at Austin, August 3-5, 1992, pp. 86-94.

Other papers and reports

[1] Jan Helge Bøhn, *Automatic CAD-Model Repair*, Ph.D. thesis, Computer and Systems Engineering, Rensselaer Polytechnic Institute, Troy, New York, August 1993.

[2] Jan Helge Bøhn, "Computing the Unit Normal for Non-Uniform Rational B-spline Surfaces," Master's thesis, Computer and Systems Engineering, Rensselaer Polytechnic Institute, Troy, New York, December 1989.

[3] Jan Helge Bøhn, "Documentation of the MAPLO Plot Program," FFI/NOTAT-86/7037, Norwegian Defense Research Establishment, Kjeller, Norway.