

### Daniel Meyer

#### Monograph

- Meyer, D.: Wärmebehandlungsfreie Fertigung randschichtgehärteter Bauteile durch mechanisch induziertes Härten. Dissertation, Universität Bremen, 2012. ISBN 978-3-8440-0866-1

#### Publications in peer-reviewed Journals

- Brinksmeier, E.; Garbrecht, M.; Meyer, D.: Cold Surface Hardening. *Annals of the CIRP, Manufacturing Technology*, 57/1, 2008, pp. 541-544.
- Brinksmeier, E.; Garbrecht, M.; Meyer, D.; Dong, J.: Surface Hardening by Strain Induced Martensitic Transformation. *Production Engineering Research and Development (Annals of the German Academic Society for Production Engineering, WGP)*, 3/2, 2008, pp. 109-116.
- Beekhuis, B.; Meyer, D.; Garbrecht, M.; Brinksmeier, E.: Potenzial des Festwalzens zur Reduzierung fertigungsinduzierter Verzüge. *Journal of Heat Treatment and Materials (HTM)*, 65/2, 2010, pp. 101-109.
- Brinksmeier, E.; Levy, G.; Meyer, D.; Spierings, A.B.: Surface integrity of selective-laser-melted components. *Annals of the CIRP, Manufacturing Technology*, 59/1, 2010, pp. 601-606.
- Meyer, D.; Dong, J., Garbrecht, M.; Hoffmann, F.; Brinksmeier, E.; Zoch, H.-W.: Mechanisch induziertes Härten. *Journal of Heat Treatment and Materials (HTM)*, 65/1, 2010, pp. 37-45.
- Meyer, D.; Kruse, D.; Bobe, A.; Goch, G.; Brinksmeier, E.: Nondestructive characterization of the surface integrity of cold surface hardened components, *Production Engineering Research and Development (Annals of the German Academic Society for Production Engineering, WGP)*, 4/5, 2010, pp. 443-449.
- Meyer, D.; Hoffmann, F., Brinksmeier, E.: Kryogenes Festwalzen metastabiler Austenite. *Journal of Heat Treatment and Materials (HTM)*, 65/6, 2010, pp. 313-320.
- Beekhuis, B; Meyer, D.; Brinksmeier, E.; Epp, J.: Verzugskompensation von Wälzlagerringen durch Festwalzen. *Journal of Heat Treatment and Materials (HTM)*, 66/3, 2011, pp. 165-174.
- Larek, R.; Brinksmeier, E.; Meyer, D.; Pawletta, T.; Hagendorf, O.: A discrete-event simulation approach to predict power consumption in machining processes. *Production Engineering Research and Development (Annals of the German Academic Society for Production Engineering, WGP)*, 5/5, 2011, pp. 575-579.
- Jawahir, I.S.; Brinksmeier, E.; M'Saoubi, R.; Aspinwall, D.K.; Outeiro, J.C.; Meyer, D.; Umbrello, D.; Jayal, A.D.: Surface integrity in material removal processes: Recent advances. *Annals of the CIRP, Manufacturing Technology*, 60/2, 2011, pp. 603-626.
- Meyer, D.; Beekhuis, B.; Brinksmeier, E.: Produktionskettenverkürzung durch hybride Festwalzprozesse. *Zeitschrift für Wirtschaftlichen Fabrikbetrieb*, 106/9, 2011, pp. 620-625.
- Meyer, D.: Cryogenic deep rolling - An energy based approach for enhanced cold surface hardening. *Annals of the CIRP, Manufacturing Technology*, 61/1, 2012, pp. 543-546.
- Schulz, J.; Brinksmeier, E.; Meyer, D.: On the Interactions of Additives in Metalworking Fluids with Metal Surfaces. *Lubricants*, 1, 2013, pp. 75-94.
- Heinzl, C.; Meyer, D; Kolkwitz, B.; Eckebracht, J.: Advanced Approach for a Demand-Oriented Fluid Supply in Grinding. *Annals of the CIRP, Manufacturing Technology*, 64/1, 2015, accepted for publication.
- Brinksmeier, E.; Meyer, D.; Huesmann-Cordes, A.H., Herrmann, C.: Metalworking Fluids – working mechanisms and performance. *Annals of the CIRP, Manufacturing Technology*, 64/2, 2015, in preparation.

## **Publications in other Journals**

- Meyer, D.; Brinksmeier, E.; Hoffmann, F.: Vorgesaltetes CO<sub>2</sub>-Schneestrahlen erhöht beim Festwalzen die Härte. *Maschinenmarkt*, 27, 2011, pp. 36-38.
- Schulz, J.; Brinksmeier, E.; Meyer, D.; Koch, T.: Projekt CoolArt: Eine interdisziplinäre Herangehensweise aus Forschung und Praxis. *Mineralöltechnik*, 1, 2011, pp. 1-18.
- Schulz, J.; Brinksmeier, E.; Meyer, D.; Huesmann, A.-G.: Mögliche Reaktionswege von Additiven bei der Metallbearbeitung. *Mineralöltechnik*, 9/10, 2011, pp. 1-21.

## **Peer-reviewed papers in Proceedings of international conferences**

- Brinksmeier, E.; Meyer, D.; Garbrecht, M.; Huntemann, J.-W.; Larek, R.: Reduced Energy Consumption by Adapted Process Chains. *Proceedings of the 36th International MATADOR Conference*, 14.-17.07.2010, Manchester, United Kingdom, Hinduja & Li (Editors), Springer-Verlag, pp. 401-404.
- Brinksmeier, E.; Meyer, D.: Surface integrity in precision machining -Precondition for the functionality of lightweight components-. *Proceedings of the International Chemnitz Manufacturing Colloquium ICMC 2010 - sustainable production for resource efficiency and ecomobility*, 29.-30.09.2010, Chemnitz, Germany, Verlag Wissenschaftliche Scripten, pp. 393-414.
- Meyer, D.; Brinksmeier, E.; Hoffmann, F.: Surface hardening by cryogenic deep rolling. *Proceedings of the 1<sup>st</sup> CIRP Conference on Surface Integrity (CSI, 30.01.-01.02.2012, Bremen, Germany)*, *Procedia Engineering*, Vol. 19, 2011, pp. 258-263.
- Guddat, J.; M'Saoubi, R.; Alm, P.; Meyer, D.: Hard turning of AISI 52100 using PCBN wiper geometry inserts and the resulting surface integrity. *Proceedings of the 1<sup>st</sup> CIRP Conference on Surface Integrity (CSI, 30.01.-01.02.2012, Bremen, Germany)*, *Procedia Engineering*, Vol. 19, 2011, pp. 118-124.
- Brinksmeier, E.; Meyer, D.; Kolkwitz, B.; Gläbe, R.: Surface- and subsurface- functionalization of monolithic metallic materials by thermo-mechanical processes. *Proceedings of the 1<sup>st</sup> International Conference on Thermo-Mechanically Graded Materials*, Kassel, Germany, 2012, pp. 73-78.
- Heinzl, C.; Meyer, D.; Kolkwitz, B.; Redetzky, M.: Machining processes for Advanced Surface Integrity. *Proceedings of the International Chemnitz Manufacturing Colloquium ICMC 2014 - sustainable production for resource efficiency and ecomobility*, 2014, Chemnitz, Germany, Verlag Wissenschaftliche Scripten, Vol. 80, pp. 495-512.
- Huesmann-Cordes, A.-G.; Meyer, D.; Brinksmeier, E.; Schulz, J.: Influence of Additives in Metalworking Fluids on the Wear Resistance of Steels. *Procedia CIRP*, Vol. 13, *Proceedings of the 2<sup>nd</sup> CIRP Conference on Surface Integrity*, Nottingham, UK, 2014, pp.108-113.
- Brinksmeier, E.; Klocke, F.; Lucca, D.A.; Sölter, J.; Meyer, D.: Process Signatures – a new approach to solve the inverse surface integrity problem in machining processes. *Procedia CIRP*, Vol. 13, *Proceedings of the 2<sup>nd</sup> CIRP Conference on Surface Integrity*, Nottingham, UK, 2014, pp. 429-434.
- M'Saoubi, R.; Czotscher, T.; Andersson, O.; Meyer, D.: Machinability of powder metallurgy steels using PcBN inserts. *Procedia CIRP*, Vol. 14, *Proceedings of the 6<sup>th</sup>. CIRP HPC Conference*, Berkley, USA, 2014, pp. 83-88.
- Meyer, D.; Redetzky, M., Kämmler, J.: The potential of cryogenic deep rolling for producing near-optical surfaces. *euspens's 15th International Conference and Exhibition*, Leuven, Belgium, 2015, accepted for publication.

## **Presentations at national and international conferences**

- Meyer, D.; Dong, J.; Garbrecht, M.; Hoffmann, F.; Brinksmeier, E.; Zoch, H.-W.: Mechanisch induziertes Härten. 65. Härtereikolloquium, 7.-9.10.2009, Wiesbaden, Germany.
- Brinksmeier, E.; Meyer, D.; Garbrecht, M.; Huntemann, J.-W.; Larek, R.: Reduced Energy Consumption by Adapted Process Chains. *36th International MATADOR Conference*, 14.-17.07.2010, Manchester, United Kingdom.

- Meyer, D.; Brinksmeier, E.: Kryogenes Festwalzen metastabiler Austenite zum Randschichthärten. DGM Fachausschuss "Mechanische Oberflächenbehandlungen", 28.10.10, Oberhausen, Germany.
- Meyer, D.; Brinksmeier, E.: Surface hardening by cryogenic deep rolling. Technical Contribution, CIRP Collaborative Working Group "Hybrid Processes", 61st General Assembly of the CIRP, 21.-27. August 2011, Budapest, Hungary.
- Brinksmeier, E.; Meyer, D.: CoolArt - An interdisciplinary European project on Metalworking Fluids. UEIL 4th Symposium on Metal Removal Fluids: Global Challenges, 14.-16.09.11, Barcelona, Spain.
- Meyer, D.; Koch, T.; Brinksmeier, E.: Online monitoring of the chemical and microbial properties of Metalworking Fluids - The electronic nose. UEIL 4th Symposium on Metal Removal Fluids: Global Challenges, 14.-16.09.11, Barcelona, Spain.
- Meyer, D.; Brinksmeier, E.: CoolArt - Putting visions into practice. European Forum on Metalworking fluids, 29.-30.11.11, Bad Nauheim, Germany.
- Meyer, D.: Mechanisch induziertes Härten / Kryogenes Festwalzen. 9. Technologieforum TransAxle, 08.11.2011, Gaggenau, Germany.
- Meyer, D.: Durchmesserabnahme zylindrischer Bauteile beim kryogenen Festwalzen zur Randschichthärtung. DGM Fachausschuss "Mechanische Oberflächenbehandlungen", 25.04.12, Karlsruhe, Germany.
- Meyer, D.; Hoffmann, F.; Brinksmeier, E.: Steigerung der Leistungsfähigkeit mechanisch induziert gehärteter Bauteile durch kryogenes Festwalzen. 68. HärtereiKongress, 10.-12.10.2012, Wiesbaden, Germany.
- Meyer, D.; Huesmann-Cordes, A. G.; Schulz, J.; Brinksmeier, E.: Interactions of metal surfaces with additives in metalworking fluids- Findings from tribological tests. Technical Contribution, STC S, CIRP General Assembly, August 22nd, 2013 Copenhagen, Denmark.
- Meyer, D.: CoolArt - Bedarfsgerechter Einsatz von Kühlschmierstoffen in der Fertigung. 9. Bremer KSS-Workshop, 25.-26.03.2014, Bremen, Germany.