

# Bert Lauwers

## List of Publications by Year in descending order

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Version: 2024-02-01

48  
papers

1,419  
citations

430874

18  
h-index

330143

37  
g-index

48  
all docs

48  
docs citations

48  
times ranked

1283  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Hybrid processes in manufacturing. CIRP Annals - Manufacturing Technology, 2014, 63, 561-583.  | 3.6  | 316       |
| 2  | Process capabilities of Micro-EDM and its applications. International Journal of Advanced Manufacturing Technology, 2010, 47, 11-19.   | 3.0  | 135       |
| 3  | Tool path compensation strategies for single point incremental sheet forming using multivariate adaptive regression splines. CAD Computer Aided Design, 2013, 45, 575-590.                               | 2.7  | 98        |
| 4  | Optimization of Energy Consumption and Surface Quality in Finish Turning. Procedia CIRP, 2012, 1, 512-517.   | 1.9  | 92        |
| 5  | Processing of ultrafine ZrO <sub>2</sub> toughened WC composites. Journal of the European Ceramic Society, 2009, 29, 3371-3378.  | 5.7  | 78        |
| 6  | Carbon nanofillers for machining insulating ceramics. Materials Today, 2011, 14, 496-501.  | 14.2 | 65        |
| 7  | Shaping of engineering ceramics by electro, chemical and physical processes. CIRP Annals - Manufacturing Technology, 2016, 65, 761-784.  | 3.6  | 64        |
| 8  | Tool path generation framework for accurate manufacture of complex 3D sheet metal parts using single point incremental forming. Computers in Industry, 2014, 65, 563-584.                                | 9.9  | 49        |
| 9  | Feature Based Approach for Increasing the Accuracy of the SPIF Process. Key Engineering Materials, 2007, 344, 527-534.   | 0.4  | 46        |
| 10 | An operation-mode based simulation approach to enhance the energy conservation of machine tools. Journal of Cleaner Production, 2015, 101, 348-359.  | 9.3  | 42        |
| 11 | Graph-based optimization of five-axis machine tool movements by varying tool orientation. International Journal of Advanced Manufacturing Technology, 2014, 74, 307-318.                                 | 3.0  | 33        |
| 12 | Micromilling of Sintered ZrO <sub>2</sub> Ceramic via cBN and Diamond Coated Tools. Procedia CIRP, 2014, 14, 371-376.  | 1.9  | 27        |
| 13 | Tribological Characteristics of WC-Ni and WC-Co Cemented Carbide in Dry Reciprocating Sliding Contact. Tribology Transactions, 2009, 52, 481-491.  | 2.0  | 26        |
| 14 | Fast Production of Gear Prototypes – A Comparison of Technologies. Procedia CIRP, 2014, 14, 77-82.   | 1.9  | 26        |
| 15 | Accuracy Improvement in Single Point Incremental Forming through Systematic Study of Feature Interactions. Key Engineering Materials, 2011, 473, 881-888.  | 0.4  | 25        |
| 16 | Tool path generation for single point incremental forming using intelligent sequencing and multi-step mesh morphing techniques. International Journal of Material Forming, 2015, 8, 517-532.             | 2.0  | 25        |
| 17 | Multivariate Adaptive Regression Splines as a Tool to Improve the Accuracy of Parts Produced by FSPIF. Key Engineering Materials, 2011, 473, 841-846.  | 0.4  | 21        |
| 18 | Micro-EDM process investigation of Si<sub>3</sub>N<sub>4</sub> TiN ceramic composites for the development of micro-fuel-based power units. International Journal of Manufacturing Research, 2008, 3, 27. | 0.2  | 19        |

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|----|---|-----|-----------|
| 19 | Electrical discharge machining of ZrO <sub>2</sub> toughened WC composites. <i>Materials Chemistry and Physics</i> , 2010, 123, 114-120.  | 4.0 | 19        |
| 20 | Machinability Investigation on High Speed Hard Turning of ZrO <sub>2</sub> with PCD Tools. <i>Procedia CIRP</i> , 2012, 1, 500-505.   | 1.9 | 18        |
| 21 | Advanced feature detection algorithms for incrementally formed sheet metal parts. <i>Transactions of Nonferrous Metals Society of China</i> , 2012, 22, s315-s322.                            | 4.2 | 15        |
| 22 | 3D Morphing for Generating Intermediate Roughing Levels in Multi-Axis Machining. <i>Computer-Aided Design and Applications</i> , 2005, 2, 115-123.  | 0.6 | 14        |
| 23 | STL Model Segmentation for Multi-Axis Machining Operations Planning. <i>Computer-Aided Design and Applications</i> , 2004, 1, 277-284.  | 0.6 | 13        |
| 24 | Influence of Material Properties on Accuracy Response Surfaces in Single Point Incremental Forming. <i>Key Engineering Materials</i> , 2012, 504-506, 919-924.                                | 0.4 | 13        |
| 25 | Experimental and numerical investigations of material removal process in electrochemical discharge machining of glass in discharge regime. <i>Precision Engineering</i> , 2021, 72, 706-716.  | 3.4 | 13        |
| 26 | Computing of the actual shape of removed material for five-axis flat-end milling. <i>CAD Computer Aided Design</i> , 2012, 44, 1103-1114.   | 2.7 | 12        |
| 27 | An Integrated Approach to Accurate Part Manufacture in Single Point Incremental Forming Using Feature Based Graph Topology. <i>Key Engineering Materials</i> , 2012, 504-506, 869-876.        | 0.4 | 10        |
| 28 | Five-axis milling tool path generation with dynamic step-over calculation based on integrated material removal simulation. <i>CIRP Annals - Manufacturing Technology</i> , 2012, 61, 139-142. | 3.6 | 10        |
| 29 | Energy-based optimization of the material stock allowance for turning-grinding process sequence. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 75, 503-513.       | 3.0 | 10        |
| 30 | Lead Time Reduction by High Precision 5-axis Milling of a Prototype Gear. <i>Procedia CIRP</i> , 2016, 46, 440-443.   | 1.9 | 10        |
| 31 | A life cycle energy analysis integrated process planning approach to foster the sustainability of discrete part manufacturing. <i>Energy</i> , 2018, 153, 604-617.                            | 8.8 | 10        |
| 32 | Experimental investigation of the process behaviour in Mechano-Electrochemical Milling. <i>CIRP Annals - Manufacturing Technology</i> , 2018, 67, 217-220.                                    | 3.6 | 10        |
| 33 | Overview of Hybrid Machining Processes. , 2018, , 21-41.  |     | 10        |
| 34 | Cement augmentation of metastatic lesions in the proximal femur can improve bone strength. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 104, 103648.             | 3.1 | 8         |
| 35 | Tool Path Generation for Single Point Incremental Forming Using Intelligent Sequencing and Multi-Step Mesh Morphing Techniques. <i>Key Engineering Materials</i> , 0, 554-557, 1408-1418.     | 0.4 | 7         |
| 36 | Development of a Flexible Laser Hardening & Machining Center and Proof of Concept on C-45 Steel. <i>Physics Procedia</i> , 2014, 56, 1083-1093.   | 1.2 | 6         |

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|----|--|-----|-----------|
| 37 | Development of low-cost production process for prototype components based on Wire and Arc Additive Manufacturing (WAAM). Procedia CIRP, 2020, 95, 60-65.   | 1.9 | 5         |
| 38 | EDM machinability and frictional behaviour of ZrO <sub>2</sub> -TiCN composites. International Journal of Machining and Machinability of Materials, 2008, 3, 226.                                  | 0.1 | 4         |
| 39 | Investigation of working gap phenomena in Mechano-Electrochemical Milling. Procedia CIRP, 2020, 95, 672-677.   | 1.9 | 3         |
| 40 | Reciprocative sliding friction and wear properties of electrical discharge machined ZrO <sub>2</sub> -based composites. Lubrication Science, 2009, 21, 378-396.                                    | 2.1 | 2         |
| 41 | Sustainable manufacturing of prototype automotive gear components within a multi-axis machining platform. Procedia Manufacturing, 2020, 43, 103-110.   | 1.9 | 2         |
| 42 | Hybrid Manufacturing based on the combination of Mechanical and Electro Physical-Chemical Processes. Procedia CIRP, 2020, 95, 649-661.   | 1.9 | 2         |
| 43 | Prediction of local sintering in laser beam machining of green Y-TZP ceramic. CIRP Annals - Manufacturing Technology, 2020, 69, 225-228.   | 3.6 | 2         |
| 44 | Influence of Secondary Electro-Conductive Phases on Sliding Wear Performance of Zirconia Based Ceramic Composites. Materials Science Forum, 2007, 561-565, 651-654.                                | 0.3 | 1         |
| 45 | Pulsed Electric Current Sintering of Electrical Discharge Machinable Ceramics. Advances in Science and Technology, 2010, 62, 175-184.  | 0.2 | 1         |
| 46 | Influence of post-heat treatments on fatigue response of low-alloyed carbon-manganese steel material manufactured by Direct Energy Deposition-Arc technique. Materials Letters, 2021, 302, 130465. | 2.6 | 1         |
| 47 | Productivity Improvement Through the Application of Hybrid Processes. Lecture Notes in Production Engineering, 2015, , 101-116.  | 0.4 | 1         |
| 48 | Selective laser hardening of injection mould components on multi-axis machining centers. Procedia CIRP, 2020, 95, 909-914.   | 1.9 | 0         |