# Sarah J Wolff

List of Publications by Year
in descending order



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|---|---|---|---|
| 30 papers | 1,228 citations | 471061 17 h-index | 476904 29 g-index |
| 30 all docs | 30 docs citations | 30 times ranked | 1015 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Data-driven multi-scale multi-physics models to derive processâ€“structureâ€“property relationships for additive manufacturing. Computational Mechanics, 2018, 61, 521-541. | 2.2 | 162 |
| 2 | A framework to link localized cooling and properties of directed energy deposition (DED)-processed Ti-6Al-4V. Acta Materialia, 2017, 132, 106-117. | 3.8 | 119 |
| 3 | Data-driven prediction of the high-dimensional thermal history in directed energy deposition processes via recurrent neural networks. Manufacturing Letters, 2018, 18, 35-39. | 1.1 | 110 |
| 4 | Anisotropic properties of directed energy deposition (DED)-processed Tiâ€“6Alâ€“4V. Journal of Manufacturing Processes, 2016, 24, 397-405. | 2.8 | 104 |
| 5 | In-situ high-speed X-ray imaging of piezo-driven directed energy deposition additive manufacturing. Scientific Reports, 2019, 9, 962. | 1.6 | 96 |
| 6 | Eco-friendly additive manufacturing of metals: Energy efficiency and life cycle analysis. Journal of Manufacturing Systems, 2021, 60, 459-472. | 7.6 | 67 |
| 7 | Modeling process-structure-property relationships for additive manufacturing. Frontiers of Mechanical Engineering, 2018, 13, 482-492. | 2.5 | 64 |
| 8 | Experimentally validated predictions of thermal history and microhardness in laser-deposited Inconel 718 on carbon steel. Additive Manufacturing, 2019, 27, 540-551. | 1.7 | 64 |
| 9 | In situ X-ray imaging of pore formation mechanisms and dynamics in laser powder-blown directed energy deposition additive manufacturing. International Journal of Machine Tools and Manufacture, 2021, 166, 103743. | 6.2 | 58 |
| 10 | In Situ Analysis of Laser Powder Bed Fusion Using Simultaneous High-Speed Infrared and X-ray Imaging. Jom, 2021, 73, 201-211. | 0.9 | 51 |
| 11 | Thermal effect on clad dimension for laser deposited Inconel 718. Journal of Manufacturing Processes, 2017, 28, 550-557. | 2.8 | 46 |
| 12 | Data-Driven Microstructure and Microhardness Design in Additive Manufacturing Using a Self-Organizing Map. Engineering, 2019, 5, 730-735. | 3.2 | 40 |
| 13 | In-situ Observations of Directed Energy Deposition Additive Manufacturing Using High-Speed X-ray Imaging. Jom, 2021, 73, 189-200. | 0.9 | 40 |
| 14 | Unidirectional magnetic field assisted Laser Induced Plasma Micro-Machining. Manufacturing Letters, 2015, 3, 1-4. | 1.1 | 35 |
| 15 | A preliminary study on the effect of external magnetic fields on Laser-Induced Plasma Micromachining (LIPMM). Manufacturing Letters, 2014, 2, 54-59. | 1.1 | 29 |
| 16 | Correlations between thermal history and keyhole porosity in laser powder bed fusion. Additive Manufacturing, 2020, 34, 101213. | 1.7 | 28 |
| 17 | Cooling rate effect on tensile strength of laser deposited Inconel 718. Procedia Manufacturing, 2018, 26, 912-919. | 1.9 | 18 |
| 18 | High-speed Synchrotron X-ray Imaging of Laser Powder Bed Fusion Process. Synchrotron Radiation News, 2019, 32, 4-8. | 0.2 | 17 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Convolutional Neural Network applications in additive manufacturing: A review. Advances in Industrial and Manufacturing Engineering, 2022, 4, 100072. | 1.2 | 15 |
| 20 | Porosity Formation and Meltpool Geometry Analysis Using High-speed, in situ Imaging of Directed Energy Deposition. Microscopy and Microanalysis, 2019, 25, 2556-2557. | 0.2 | 13 |
| 21 | In situ X-ray and thermal imaging of refractory high entropy alloying during laser directed deposition. Journal of Materials Processing Technology, 2022, 299, 117363. | 3.1 | 13 |
| 22 | In situ high-speed synchrotron X-ray imaging of laser-based directed energy deposition of the alloying process with dissimilar powders. Journal of Manufacturing Processes, 2022, 75, 1003-1011. | 2.8 | 10 |
| 23 | A VIBRATION-ASSISTED POWDER DELIVERY SYSTEM FOR ADDITIVE MANUFACTURING - An experimental investigation -. Additive Manufacturing, 2020, 34, 101170. | 1.7 | 6 |
| 24 | Preliminary Study on the Influence of an External Magnetic Field on Melt Pool Behavior in Laser Melting of 4140 Steel Using In-Situ X-Ray Imaging. Journal of Micro and Nano-Manufacturing, 2020, 8, . | 0.8 | 6 |
| 25 | Powder-borne porosity in directed energy deposition. Journal of Manufacturing Processes, 2022, 80, 69-74. | 2.8 | 6 |
| 26 | Investigation of pore formation mechanisms induced by spherical-powder delivery in directed energy deposition using in situ high-speed X-ray imaging. Additive Manufacturing Letters, 2022, 3, 100050. | 0.9 | 5 |
| 27 | High-speed synchrotron X-ray imaging of directed energy deposition of titanium: effects of processing parameters on the formation of entrapped-gas pores. Procedia Manufacturing, 2021, 53, 148-154. | 1.9 | 3 |
| 28 | Synchronized in situ X-ray and infrared imaging of laser deposition. Manufacturing Letters, 2022, 31, 87-90. | 1.1 | 2 |
| 29 | In situ X-ray imaging of directed energy deposition of metals: The comparisons of delivery performance between spherical and irregular powders. Journal of Manufacturing Processes, 2022, 79, 11-18. | 2.8 | 1 |
| 30 | An information classification system for life cycle and manufacturing standards. , 2014, , . | | 0 |