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Background

2020-　　　Professor, Next Generation Tatara Co-Creation Centre, Shimane University

2016-2019　Associate Professor, Mechanical, Electrical and Electronic Eng., Shimane University

2013-2015　Brunel University London, UK

2010-2011　Visiting Scholar, Stanford University, USA

2008-2010　Part-time lecturer, Aoyama Gakuin University

2001-2013　National Aerospace Laboratory of Japan (NAL), Japan Aerospace Exploration Agency (JAXA)

2001　　　Dr. Eng. (Aerospace Engineering), University of Tokyo

1998　　　Master Eng. (Aerospace Engineering), University of Tokyo

1996　　　Bachelor Eng. (Aerospace Engineering), University of Tokyo

Research interests

Numerical simulation, Multiphase flow, Heat/mass transfer, Metal processing

Key papers

1. T. Mukherjee, J. Shinjo, T. DebRoy, C. Panwisawas, "Integrated modeling to control vaporization-induced composition change during additive manufacturing of nickel-based superalloys," *npj Computational Materials* 10 (2024) 230.

2. K. Zhang, Y. Chen, S. Marussi, X. Fan, M. Fitzpatrick, S. Bhagavath, M. Majkut, B. Lukic, K. Jakata, A. Rack, M. A. Jones, J. Shinjo, C. Panwisawas, C. L. A. Leung, P. D. Lee, "Pore evolution mechanisms during directed energy deposition additive manufacturing," *Nature Communications* 15 (2024) 1715.

3. J. Shinjo, A. Kutsukake, A. Arote, Y. T. Tang, D. G. McCartney, R. C. Reed, C. Panwisawas, "Physics-based thermal-chemical-fluid-microstructure modelling of in-situ alloying using additive manufacturing: Composition-microstructure control," *Additive Manufacturing* 64 (2023) 103428.

4. J. Shinjo, C. Panwisawas, "Digital materials design by thermal-fluid science for multi-metal additive manufacturing," *Acta Materialia* 210 (2021) 116825.