



Professor

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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.