

Contribution ID: 455

Type: **Presentazione orale**

When Materials Science and Rocket Science Unite: Rethinking Manufacturing Paradigms for Sustainability Through Cold Spray Additive Manufacturing

Thursday 3 September 2026 09:00 (30 minutes)

Cold Spray Additive Manufacturing (CSAM) is a solid-state process poised to redefine how we build and repair critical components. This presentation will take the audience on the remarkable journey of CSAM, from its early development at the intersection of materials science and rocket science to its emergence as a disruptive manufacturing technology. Attendees will gain a clear understanding of the process fundamentals and its unique capabilities. Beyond the hype, the session will explore why CSAM has the potential to become a true manufacturing paradigm shift: enabling rapid production, high-value repair and life extension, processing of difficult-to-manufacture alloys, multi-material design, and more sustainable industrial practices. Discover how this technology could challenge centuries of melt-based manufacturing and help shape the future of advanced production.

Primary author: Prof. JODOIN, Bertrand (University Ottawa)**Presenter:** Prof. JODOIN, Bertrand (University Ottawa)**Session Classification:** Keynote speech