

Bernard Revaz

AMiquam

Topic

In-situ Inspection for Advanced Manufacturing

We will present electromagnetic measurement techniques employed within metal Additive Manufacturing (AM) to assess part quality according to established Non-Destructive Inspection (NDI) standards in the metal industry. Our cutting-edge technology seamlessly integrates with most commercial metal Laser Powder Bed Fusion (LPBF) systems and supports all pertinent materials. The latest integration into LPBF machines, enabling full build plate coverage, will be described. Applications of in-situ inspection for advanced manufacturing will be introduced for other techniques such as shot peening and Direct Energy Deposition (DED). The workflow enabling part certification according to established standards, based on data provided by our system, will be presented. Implementation into industry processes is expected to reduce production costs and cut down delivery delays.

About the Speaker

Dr. Bernard Revaz boasts an extensive academic record, having contributed to over 100 peer-reviewed publications spanning both fundamental and applied research in quantum materials and sensory technologies. With 15 years of experience in industrial R&D, Dr. Revaz has successfully leveraged his scientific background and technical skills towards advancing electromagnetic and optical sensor development for digital and advanced manufacturing applications.

His intellectual property portfolio includes 13 granted patents, and he has played a pivotal role in establishing several startups focused on delivering deep tech solutions to enhance quality control and inspection processes for leading industries. Currently, Dr. Revaz serves as founder/CEO of AMiquam, a four-year-old enterprise specializing in in-situ inspection solutions for the metal additive manufacturing sector, ultimately driving reductions in manufacturing expenditures and lead times.