

# **Cold Particles Characterization Techniques Applied to the Cold Spray Process**

Mr. Luc Pouliot

Tecnar Automation

Over the last 15 years, there has been a significant interest for the characterization of cold particles in thermal spray processes, or room temperature particles in grit blasting & shot peening. Various approaches have been developed to characterize those particles that are too cold to be detected by conventional pyrometric techniques. Over the last 5-8 years, the tremendous research & development efforts in the cold spray field as well as the advent of reliable industrial cold spray systems has further fueled the interest & need for simple-to-use cold particle characterization devices. During the present talk, we will present a device that allows for simultaneous measurement of individual particle's velocity, size & flux regardless of their temperature. Data obtained with commonly sprayed materials as well as different cold spray systems will be presented