

# 30<sup>th</sup> Cold Spray Club Meeting: April 26<sup>th</sup>, 2024

Historical building of Universitat de Barcelona (Aula Magna). C/ Gran Via de les Corts Catalanes 585, 08007 Barcelona

## Agenda

**8:50 Introduction** (Sergi Dosta, Francesco Delloro)

### Session 1: New materials

- 9:20 Sergi Dosta, SDT/Universitat de Barcelona, Spain: Novel intermetallic coatings produced by Cold Gas Spray
- 9:40 Markus Brotsack, Impact Innovations, Germany: Niobium alloy C-103 for high-performance space applications – using Cold Spray Additive Manufacturing (CSAM)
- 10:00 Steven Camilleri, Spee3D, Australia: Corrosion behaviour of high performance cold sprayed maritime alloys
- 10:20 Giovanni Bolelli. Università di Modena, Italy: High-Entropy Alloy based coatings obtained by Cold Gas Spray from HEBM powders

**Coffee break 10:40 – 11:10**

### Session 2: New applications

- 11:10 Julio Villafuerte, CenterLine, Canada: Utilization of Cold Spray Aluminum Spray for Upgrading of Aluminum Cryogenic Pumps for Liquefied Natural Gas (LNG)
- 11:30 Mustafa Yahiaoui, CRITT TJFU, France: A novel approach to assist transient liquid phase brazing by cold spray coating
- 11:50 Sudip Kundua, Amsterdam University of Applied Sciences, The Netherlands: Study of failure mechanism of Aluminum 6061- T6 cold spray repairs towards the development of a qualified cold spray repair methodology
- 12:10 Mehand Tebib, Mines Paris – PSL, France: Hydrogen embrittlement resistance of aluminum-based coatings deposited by cold spray on pipeline steel

**Lunch 12:30 – 13:50**

### Session 3: New developments

- 13:50 Ludovic Vitu, UTBM, France: Multi-material joining process using cold spray and laser texturing
- 14:10 S. Koufis, Delft University of Technology, The Netherlands: Monitoring the Cold Spray Process: Real-time particle velocity and deposition quality monitoring through airborne acoustic emission analysis
- 14:30 Javier Sánchez, CPT, Spain: Contribution to green hydrogen production cost reduction by cold gas spray additive manufacturing
- 14:50 Ferdy Townen, Titomic Europe, The Netherlands: Medium Pressure Cold Spray developments at Titomic
- 15:10 Bertrand Jodoin, University of Ottawa, Canada

**Coffee break 15:30 – 16:00**

**Session 4: Modeling**

16:00 Ali Dolatabadi, University of Toronto, Canada: Modeling Cold Spray Additive Manufacturing: A Comprehensive Multiscale Approach

16:20 Alain Reiser, KTH Royal Institute of Technology, Sweden: Many-particle impact bonding with quantitative single-particle experiments

**16:40 – 17:20 Open discussion** led by Klaas Rozema (Titomic Europe)

**17:20 – 18:30 Ibericos & Spanish wine tasting**