

Structural integrity of L-PBF Ti6Al4V (ESA project)

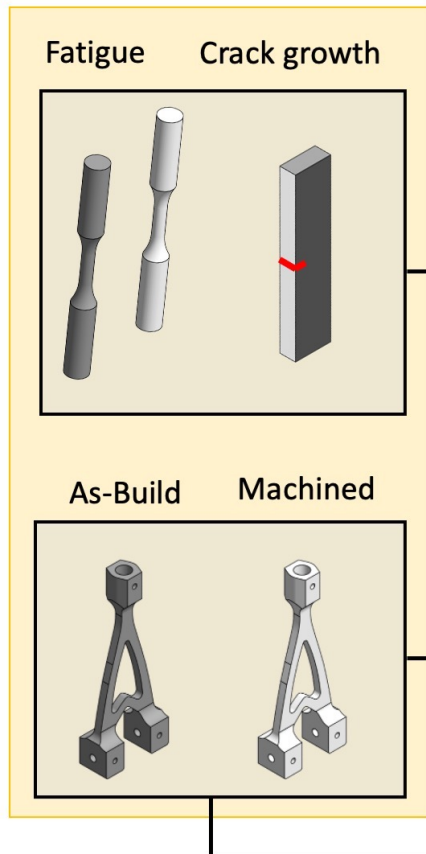
Supervisors:

S. Beretta

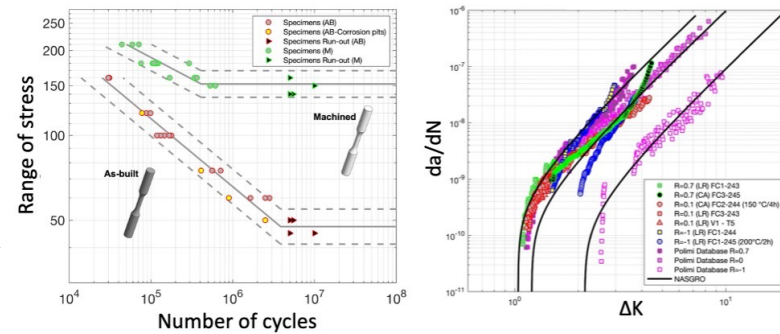
L. Patriarca

Validation of a fracture-based fatigue assessment of AM components made of Ti64 and manufactured by L-PBF, specimen to be tested at PoliMi and components to be tested at ESA (in the picture a similar assessment just closed on Al parts)

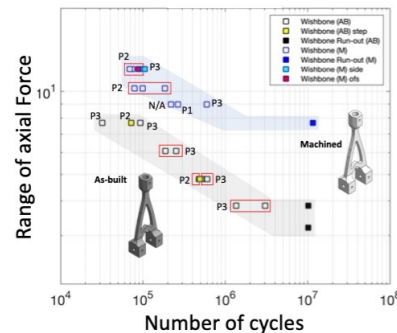
L-PBF Manufacturing



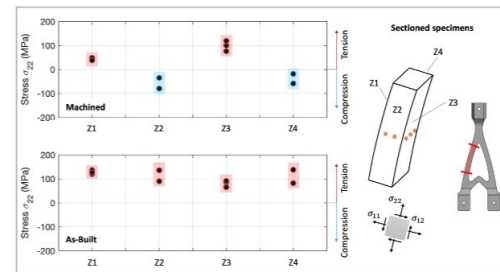
AlSi₁₀Mg Fatigue performances



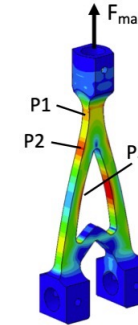
Fatigue tests on Demonstrators



Residual Stresses



FEA



FATIGUE MODEL

Life Predictions

