

Plenary Day 1			
Time	First Name	Last Name	Title
09:00-09:20	Olav	Bolland	Presentation of NTNU Trondheim, Opening Words
09:20-09:40	Torgeir	Welo	Presentation of Mechanical Engineering at NTNU, Opening words
09:40-10:00	Filippo	Berto	Opening Words ESIAM 2019 (on behalf of ESIS TC15)
10:00-10:40	Mohsen	Seifi	Metal Additive Manufacturing Standardization Issues in the Context of Structural Integrity

Session 1- Day 1- Room 1- Process Property Relationship 1			
Time	First Name	Last Name	Title
11:00-11:20	Raffaele	Sepe	The effect of the contour on the mechanical properties of the Ti6Al4V Electron Beam Melted
11:20-11:40	Constantinos	Goulas	Influence of the material deposition strategy on the microstructure and mechanical properties of S690 steel by Wire and Arc Additive Manufacturing
11:40-12:00	Abilio	Jesus	Influence of Laser Powder Bed Fusion Processing Strategy on 316L Stainless Steel Porosity and Its Impact on Tensile Properties and Machinability
12:00-12:20	Jorge	Lino Alves	Influence of Laser Powder Bed Fusion Processing Parameters on the Microstructure of 316L Stainless Steel
12:20-12:40	Olivier	Poncelet	Effect of scan strategy and laser parameters on roughness of SLM AlSi10Mg thin-walls

Session 1- Day 1- Room 1- Process Property Relationship 2			
Time	First Name	Last Name	Title
13:40-14:00	Martin	Hankele	Investigation of the process influences on the pore size distribution of selective laser melted parts of AlSi10Mg
14:00-14:20	Andrea	Tridello	VHCF response of Selective Laser Melted AlSi10Mg Gaussian specimens: effect of building orientations
14:20-14:40	Alexander	Ulbricht	Influence of scanning directions on residual stress distribution in structures manufactured by laser powder bed fusion
14:40-15:00	Moritz	Kaess	Experimental and numerical investigation of residual stresses in selective laser melting
15:00-15:20	Paul	Sandmann	Numerical and experimental analysis of residual stress evolution of 316L stainless steel manufactured by Selective Laser Melting (SLM)

Session 1- Day 1- Room 1- Process Property Relationship 3			
Time	First Name	Last Name	Title
15:40-16:00	Hunor	Erdelyi	Effect of process induced artefacts on the fatigue life estimation of additive manufactured metal components
16:00-16:20	Chola	Elangeswaran	Influence of building orientation and heat treatment on the fatigue properties of 316L stainless steel manufactured by laser powder bed fusion
16:20-16:40	Kaveh	Samadian	Mechanical properties of as-built steel components made by wire+arc additive manufacturing (WAAM)
16:40-17:00	Li	Sun	A piecewise offset deposition strategy for reducing residual stress and distortion of wire and arc additive manufactured thin-walled structures
17:00-17:20	Cui	Seow	Effect of post-deposition heat treatment on the microstructure of Wire + Arc Additively Manufactured (WAAM) nickel-base superalloy

Session 2- Day 1- Room 2- Characterization 1			
Time	First Name	Last Name	Title
11:00-11:20	Spencer	Jeffer	Mechanical Property Characterisation of Additive Materials via Miniaturised Testing
11:20-11:40	Joseph	Marae Djouda	Optimization of mechanical properties of AM Structures: characterization of the kinematic fields at nanoscale.
11:40-12:00	Mikkel Melters	Pedersen	Estimation of fatigue strength of printed AlSi10Mg from CT scans
12:00-12:20	Tobias	Rønneberg	Grainy images: in-situ optical microscopy of AM microstructures during mechanical loading.
12:20-12:40	Paul	Hooper	In-situ monitoring for additive manufacturing: inspection, process control and structural integrity

Session 2- Day 1- Room 2- Characterization 2/ Lattice Structures 1			
Time	First Name	Last Name	Title
13:40-14:00	Vimalathithan	Paramsamy Nadar Kannan	Corrosion Monitoring in AISI Steel 300- SLM components using Acoustic Emission Technique
14:00-14:20	Maximilian	Sprengel	Combining diffraction methods to non-destructively characterize through thickness residual stress gradients in selective laser melted IN718
14:20-14:40	Martin	Kristoffersen	Experimental and numerical investigations of additively manufactured AlSi10Mg plates subjected to ballistic perforation
14:40-15:00	Mathieu	Suard	From local defects characterization to the mechanical behavior of IN718 lattice structures made by SLM
15:00-15:20	Wiebke	Radlof	Numerical and experimental investigations of AM lattice structures under different quasi-static loading conditions

Session 2- Day 1- Room 2- Lattice Structures 2			
Time	First Name	Last Name	Title
15:40-16:00	Alexis	Burr	Fatigue life of Ti-6Al-4V lattice structures made by EBM
16:00-16:20	Antonio	Cutolo	Influence of unit cell orientation on fatigue properties of Ti-6Al-4V lattice structures produced by laser powder bed fusion
16:20-16:40	Charlotte	De Formanoir	Fatigue characteristics of SLM Ti-6Al-4V lattice structures under different load ratios
16:40-17:00	Khali	Refai	Multiaxial fatigue behavior of titanium lattice structures produced by SLM
17:00-17:20			

Session 3- Day 1- Room 3- Applications, Standardization and Quality Assurance 1			
Time	First Name	Last Name	Title
11:00-11:20	Zeina	Al-Nabulsi	The potential for Metal 3-D printing in Structural Engineering
11:20-11:40	Ligeia	Paletti	Impact of additive manufacturing on structural integrity methodologies for aerospace components
11:40-12:00	Colin	McDonald	Investigation of performance gain of additive manufactured parts in prototype automotive application
12:00-12:20	Eliza	Truskiewicz	Additive manufacturing of tailored lightweight mechanical metamaterials for industrial applications
12:20-12:40	Simone	Romano	Benchmarking of a software for fatigue assessment of AM parts

Session 3- Day 1- Room 3- Applications, Standardization and Quality Assurance 2			
Time	First Name	Last Name	Title
13:40-14:00	Eva	Junghans, Dr.	Certification of AM materials for maritime application
14:00-14:20	Ella	Kunze	Development and analysis of accompanying samples for quality assurance of highly loaded SLM components
14:20-14:40	William M.I.	Makhetha	Developing a structured post-processing framework to qualify SLM Ti-6Al-4V surface roughness for aerospace application
14:40-15:00	Simone	Romano	A comprehensive approach for quality control and fatigue assessment of SLM AISi10Mg
15:00-15:20			

Session 3- Day 1- Room 3- Biomaterials			
Time	First Name	Last Name	Title
15:40-16:00	Sandra	Petersmann	Mechanical Characterization of PMMA Produced by Fused Filament Fabrication as a Potential Material for Cranial Bone Reconstruction
16:00-16:20	Luca	Susmel	Influence of the printing direction on the fatigue behavior of 3D-printed polylactide (PLA)
16:20-16:40	Kristin Sirnes	Ødegaard	The Osteogenesis of Electron Beam Melted Porous Ti-6Al-4V Scaffolds: an in vitro study
16:40-17:00	Stefan	Kain	Impacts of different infill patterns on specific mechanical characteristics of printed wood fiber reinforced thermoplastics produced by Fused Deposition Modeling
17:00-17:20			

Plenary Day 2

Time	First Name	Last Name	Title
09:00-09:40	Jürgen	Stampfl	Tough photopolymers for 3D-printing: Design principles and digital materials
09:40-10:20	Matthew	Gilbert	Interactive conceptual design of optimized AM components

Session 1- Day 2- Room 1- Microstructure and Defects 1			
Time	First Name	Last Name	Title
10:40-11:00	Dan Ioan	Stoia	Fracture toughness and geometrical aspects of samples obtained by selective laser sintering (SLS)
11:00-11:20	Catrin	Davies	Fracture Toughness Prediction and Measurement in 316H Stainless Steel Samples Manufactured by Selective Laser Melting
11:20-11:40	Rainer	Wagener	Influences on the cyclic material behavior of additively manufactured structures and their considerations during a fatigue assessment
11:40-12:00	Richard	Williams	Process - temperature - microstructure relations in laser powder bed fusion
12:00-12:20	Nong	Gao	Comprehensive research on microstructure and properties of alloys manufactured by SLM

Session 1- Day 2- Room 1- Microstructure and Defects 2			
Time	First Name	Last Name	Title
13:20-13:40	Werner	Tiago	Experimental investigation of cyclic R-curves for additively manufactured 316L steel
13:40-14:00	Emiel	Amsterdam	Stress-life properties of laser powder bed fusion Inconel 718 fatigue specimens
14:00-14:20	Benjamin	Möller	Fatigue strength of additively manufactured and laser beam welded AlSi10Mg
14:20-14:40	Matthieu	Bonneric	Influence of defects on the fatigue behavior of AlSi7Mg0.6 obtained by SLM
14:40-15:00	Mamduh Mustafa	Awd	Microstructural damage and fracture mechanisms of selective laser melted AlSi10Mg alloy under fatigue loading

Session 1- Day 2- Room 1- Microstructure and Defects 3			
Time	First Name	Last Name	Title
15:20-15:40	Luis Alexander	Avila Calderon	Low cycle fatigue behavior, microstructural evolution and failure mechanisms of additively manufactured Ti-6Al-4V
15:40-16:00	Seyed Mohammad Javad	Razavi	Multiaxial fatigue behavior of severely notched Ti-6Al-4V specimens made by Direct Metal Laser Sintering
16:00-16:20	Bryan	Proano	Weakest Region Analysis and Size Effects on the Nature and Distribution of Defects and Their Influence on Strength of Noncombustible Mg Products Fabricated by Selective Laser Melting
16:20-16:40			
16:40-17:00			

Session 2- Day 2- Room 2- Notches and Discontinuities			
Time	First Name	Last Name	Title
10:40-11:00	Giovanni	Meneghetti	Influence of defects and sharp notches on axial fatigue strength of additively manufactured maraging steel specimens
11:00-11:20	Matilde	Scurria	Interaction of geometrical notches and defects with the fatigue strength of additively manufactured AISi10Mg
11:20-11:40	Klas	Solberg	Notched Fatigue Behavior of Additively Manufactured Inconel 718
11:40-12:00	Seyed Mohammad Javad	Razavi	Notched Fatigue Behavior and Modeling of Additive Manufactured Metals Including the Effects of Multiaxial Stresses, Notch Constraint and Stress Gradient
12:00-12:20	Sigfrid-Laurin	Sindinger	Investigating the link between inhomogeneous porosity features and wall thickness dependent mechanical properties of laser sintered PA12 structures

Session 2- Day 2- Room 2- Combined Loads			
Time	First Name	Last Name	Title
13:20-13:40	Miguel	Costas	An experimental and numerical study on the lateral crushing of additively manufactured AISi10Mg boxes.
13:40-14:00	Inigo	Bacaicoa	Fatigue behaviour of Press-Fit Joints of AM Parts by Digital Image Correlation and micro-Computed Tomography
14:00-14:20	Luigi Mario	Viespoli	High temperature fatigue of additively manufactured Ti-6Al-4V titanium alloy
14:20-14:40	Kai	Wang	Stress fatigue corrosion mechanism of WAAMed low-temperature steel parts in the simulated sea environment
14:40-15:00			

Session 2- Day 2- Room 2- Post Processing 1			
Time	First Name	Last Name	Title
15:20-15:40	Konstantinos	Georgilas	Effect of post-thermal treatments on microstructure and mechanical properties of L-PBF IN718 material
15:40-16:00	Gerrit	Ter Haar	Selective laser melting produced Ti6Al4V: Influence of low temperature thermal treatment on stress relief and martensite decomposition phase transformation
16:00-16:20	Konstantin	Sommer	Microstructure ageing of stainless steel AISI 316L manufactured by selective laser melting (SLM)
16:20-16:40	Chiara	Colombo	Enhancing mechanical properties and residual stresses by optimized heat treatments on SLM AISi10Mg samples
16:40-17:00	Matthieu	Marteleur	Effect of process parameters and post-treatments on the mechanical static and fatigue properties of SLM AISi10Mg alloy

Session 3- Day 2- Room 3- Novel Materials and Material Combinations 1			
Time	First Name	Last Name	Title
10:40-11:00	Shuai	Guan	Laser engineered net shaping deposition of high entropy alloys: Microstructures and mechanical behavior
11:00-11:20	Jorge	Bauer	Application of Multi - technology in the manufacture of parts by 3D printing
11:20-11:40	Hannes	Grünbichler	Continuous fiber reinforced freeform 3D printing
11:40-12:00	Sergey	Panin	Design Principles for extrudable composites based on ultra-high molecular weight Polyethylene fabricated by 3D-printing.
12:00-12:20	Lorenzo	Bergonzi	Free standing bimodal materials obtained by cold spray deposition

Session 3- Day 2- Room 3- Novel Materials and Material Combinations 2			
Time	First Name	Last Name	Title
13:20-13:40	Sara	Bagherifard	Free standing bimodal materials obtained by cold spray deposition
13:40-14:00	Ayse	Balaban	Determination of Mechanical Properties of GFRP-Balsa Sandwich Composite Material
14:00-14:20	Marie-Salome	Duval-Chaneac	Early stage fatigue behaviour of L-PBF 316L and 316L/IN718 multiple metallic materials
14:20-14:40	Maria L.	Montero-Sistiaga	Fatigue performance of micro-crack free Hastelloy X produced by selective laser melting (SLM)
14:40-15:00			

Session 4- Day 2- Room 4- Symposium on Metal Additive Manufacturing and Engineering Structural Integrity: Part 1 – Titanium alloys

Time	First Name	Last Name	Title
10:40-11:00	Rui	Bao	The Effects of Microstructure Heterogeneity on Fatigue Crack Growth in Laser Melting Deposited Titanium Alloys
11:00-11:20	Thorsten	Becker	The structural integrity of Additively Manufactured Ti6Al4V: Materials, process and build attributes linked to part life predictions
11:20-11:40	Dibakor	Boruah	Effect of post-deposition thermal treatments on microstructure and mechanical properties of cold sprayed Ti-6Al-4V alloy
11:40-12:00	Matteo	Benedetti	Study on the relationship between the geometry and the mechanical properties of Selective Laser Melted lattice materials
12:00-12:20	María Teresa	Pérez Prado	Powder fabrication and characterization of Ti-based alloys for additive manufacturing

Session 4- Day 2- Room 4- Symposium on Metal Additive Manufacturing and Engineering Structural Integrity: Part 1 – Titanium alloys

Time	First Name	Last Name	Title
13:20-13:40	Bo	Chen	Experimental and theoretical studies of intergranular strain accumulation in electron beam melted Ti-6Al-4V alloy during cyclic deformation
13:40-14:00	Gowtham	Soundarapandiyam	Effect of post thermal treatments on the structural integrity of Ti6Al4V parts fabricated by EB-PBF

Session 4- Day 2- Room 4- Symposium on Metal Additive Manufacturing and Engineering Structural Integrity: Part 2 – High-Temperature Materials

Time	First Name	Last Name	Title
14:20-14:40	Bo	Chen	Cracking mechanism and mitigation strategy for gamma'-precipitation strengthened Ni-base superalloys with a columnar grain structure processed by selective electron beam melting
14:40-15:00	Hongbiao	Dong	Solidification and Densification Behaviour of Nb-Si-Ti Alloys Manufactured by Laser Additive Manufacturing
15:00-15:20	David	Lewis	Effect of Build Orientation on Surface Roughness and Oxidation Characteristics of an Additive Manufactured Aerospace Alloy
15:20-15:40	Junpin	Lin	A critical analysis of microstructural formation in electron beam melted gamma-TiAl alloy containing high Nb
15:40-16:00	Fencheng	Liu	Delta aging treatment and its effect on Laves phase elimination and mechanical property of Inconel 718 superalloy fabricated by laser solid forming
16:00-16:20			

Plenary Day 3

Time	First Name	Last Name	Title
09:00-09:40	Jan Van	Humbeek	Comparing the mechanical properties of AM produced metallic materials and bulk materials. Why do they differ?
09:40-10:20	Nima	Shamsaei	On the Structural Integrity of Additively Manufactured Parts: The Need for Establishing Powder-Process-Structure-Property-Performance Relationships

Session 1- Day 3- Room 1- Property and process prediction 1			
Time	First Name	Last Name	Title
11:00-11:20	Robert	Lancaster	Alternative Approaches for Assessing the Fatigue Performance of Additive Manufactured Aerospace Alloys
11:20-11:40	Amir	Charmi	Virtual-lab-based determination of a macroscopic yield function for additively manufactured parts
11:40-12:00	Tieng Dung	Dinh	Multiscale fatigue modelling of additively manufactured metallic components
12:00-12:20	Luca	Susmel	Material characteristic lengths to design 3D-printed notched titanium against fatigue
12:20-12:40	Paolo	Ferro	A local-global approach applied to additive manufacturing numerical simulation

Session 1- Day 3- Room 1- Property and process prediction 2			
Time	First Name	Last Name	Title
13:40-14:00	Josef	Kiendl	Impact of the mesostructural layout on strength and toughness of FDM-printed materials
14:00-14:20	James	Palko	Particle based simulation approaches in cold spraying
14:20-14:40	Riccardo	Caivano	A new methodology for thermo-structural topology optimization: analytical definition and validation
14:40-15:00	Evangelos	Tyflopoulos	A comparison study between topology optimization and lattice structures for additive manufacturing

Session 2- Day 3- Room 2- Post Processing 2			
Time	First Name	Last Name	Title
11:00-11:20	Shahir	Mohd Yusuf	Ultrafine-grained microstructure and enhanced corrosion performance of 316L stainless steel fabricated by Selective Laser Melting and processed through high-pressure torsion
11:20-11:40	Andrea	Tridello	Microstructural changes induced by low temperature heat treatments: effects on the VHCF response of SLM AlSi10Mg Gaussian specimens
11:40-12:00	Guang-Ping	Zhang	Improvement of fatigue properties of selective laser melting-fabricated Inconel 718 by tailoring heat treatment route
12:00-12:20	Stephanie	Godet	Innovative HIPping strategies in order to improve the mechanical properties of Ti-6Al-4V parts produced by EBM
12:20-12:40	Jaime	Domínguez	Effect of surface treatment on the fatigue strength of additive manufactured Ti6Al4V alloy

Session 2- Day 3- Room 2- Post Processing 3			
Time	First Name	Last Name	Title
13:40-14:00	Agustin	Diaz	Surface texture optimization of AM metal components for improved mechanical performance
14:00-14:20	Sergey	Panin	Ultrasonic Impact Treatment Structure Modification of Ti64 3D- printed parts
14:20-14:40	Luis	Reis	Effect of the ironing process on ABS parts produced by FDM
14:40-15:00	Paulo	Reis	Stress-Relaxation behavior of 3D-printed polylactide (PLA)

Session 4- Day 3- Room 4- Symposium on Metal Additive Manufacturing and Engineering Structural Integrity: Part 2 – High-Temperature Materials

Time	First Name	Last Name	Title
11:00-11:20	Tyler	London	Additive Manufacturing Process Simulations: from Microstructure to Distortion
11:20-11:40	Hui	Peng	Influence of powder characteristics on the microstructure and mechanical behavior of GH 4099 superalloy fabricated by electron beam melting
11:40-12:00	Bin	Zhang	Effect of laser power on mechanical properties of Inconel 718 fabricated by laser metal deposition
12:20-12:40	Hongbiao	Dong	Solidification and Densification Behaviour of Nb-Si-Ti Alloys Manufactured by Laser Additive Manufacturing

Goodbye

Day 3- 10.9.2019

Goodbye			
Time	First Name	Last Name	Title
15:40-16:00	Jan	Torgersen	Closing ceremony and presentation of next ESIAM 2022