

	Nov.15 Wed.	Nov.16 Thu.	Nov.17 Fri.
9:00		Toda, Yoshiyuki (NIMS) Science for Creation of Super-Titanium by Super-Thermal Field Invited	Adachi, Yoshitaka (Nagoya Univ.) Potential microstructural descriptors of additive-manufactured 316L stainless steel Invited
9:05			
9:10		Cobbinah, Prince Valentine (Univ. Tokyo) Effects of process parameters on microstructure and mechanical properties of Ti6246 fabricated by Laser Powder Bed Fusion (LPBF)	Yamanaka, Akinori (Tokyo Noko Univ.) Non-equilibrium multi-phase-field simulation of solidification in SUS316L stainless steel
9:15			
9:20		Kariya, Shota (Osaka Univ.) Columnar Grains Formation in L-PBF Prepared Single α Ti-C Alloys	Voorhees, Peter W. (Northwestern Univ.) Interfacial Nonequilibrium and the Development of Microstructure During Additive Manufacturing Keynote
9:25			
9:30		Ishimoto, Takuya (Univ. Toyama) Metal Powder Bed Fusion of Biomedical Beta-Titanium Alloys Invited	To, Albert (Univ. Pittsburgh) Toward Large-Scale Melt Pool and Microstructure Prediction in Laser Powder Bed Fusion Additive Manufacturing Invited
9:35			
9:40		Break 20min	Break 20min
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9:50		Tane, Masakazu (Osaka Metropolitan Univ.) Anisotropic elastic properties of biomedical Ti alloys prepared by additive manufacturing	Yan, Wentao (Natl. Univ. Singapore) High-fidelity Multi-physics Modeling of Additive Manufacturing: Process, Microstructure, and Property Invited
9:55			
10:00		Tahara, Masaki (Tokyo Tech) Microstructure and mechanical properties of metastable β -type Ti-Cr-Sn alloys fabricated by laser powder bed fusion with pure metal mixed powders	Sakane, Shinji (Kyoto Inst. Tech.) Prediction of three-dimensional solidification microstructure in a molten pool during L-PBF process: direct coupling of micro-scale phase-field and meso-scale thermal fluid flow simulations
10:05			Closing
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11:05	Registration		
11:10		Chen, Han (Univ. Tokyo) Microstructural origin of nano-scale omega formation in Ti-based high entropy alloy processed by laser powder bed fusion	
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13:00	Opening	Chiba, Akihiko (Tohoku Univ.) Various problems arising during electron beam additive manufacturing and their materials science solutions Keynote	
13:05			
13:10		Yamanaka, Kenta (Tohoku Univ.) Various problems arising during electron beam additive manufacturing and their materials science solutions	
13:15	Koizumi, Yuichiro (Osaka Univ.) Digital Twin Science for Materials Creation by Super-Thermal Field: Computer Simulations and Process Monitoring of Powder Bed Fusion Additive Manufacturing of Metals Keynote		
13:20		Cho, Ken (Osaka Univ.) Influence of input energy density on microstructure of β -containing TiAl Alloys fabricated by additive manufacturing	
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13:30		Ozasa, Ryosuke (Osaka Univ.) Design and development of a single-phase refractory high entropy alloy (RHEAs) with BCC structure	
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13:40		Matsumoto, Hiroaki (Kagawa Univ.) Creation of high temperature field in Al based alloy by composite with SiC ceramics in LPBF process	
13:45	Wang, Pan (A*STAR Graduate Academy) Microstructure Evolution and Mechanical Properties of Advanced Alloys in Powder Bed Fusion Invited		
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14:10	Jagle, Eric A. (Univ. Bundeswehr Munich) Precipitation from the liquid and solid state in alloys during AM Invited		
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14:35	Liu, Yuheng (Osaka Univ.) Solidification Conditions of Fe-based Materials in Laser Powder Bed Fusion Investigated by Computer Simulations and in-Process Monitoring		
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14:55	Masato, Ueda (Kansai Univ.) Thermal Sensitivity of Ti-Zr-Al Alloys for Additive Manufacturing	Break 20min	Conference Tour
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15:15	Break 20min	Kimura, Teiichi (JFCC) Development of Laser Sintering Technique for Oxide Ceramics Invited	
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15:40	Maire, Eric (INSA Lyon) Metal additive manufacturing at MetalS : Tomography characterization Keynote	Ito, Akihiko (Yokohama Natl. Univ.) Unidirectional growth in YAG-alumina eutectic system via chemical vapor deposition under superthermal field	
15:45			
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16:05	Morishita, Kohei (Kyushu Univ.) Synchrotron X-ray imaging of rapid melting and rapid solidification phenomena of metallic materials under Super-Thermal Field Invited	Nomura, Naoyuki (Tohoku Univ.) Fabrication of spherical ZrO ₂ -Al ₂ O ₃ composite powders by freeze-dry pulsed orifice ejection method for laser powder bed fusion	
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16:30	Wiezorek, J.M.K. (Univ. Pittsburgh) Nano-scale Spatiotemporal Resolution Transmission Electron Microscopy of Rapid Solidification Microstructure Evolution after Pulsed Laser Melting of Al-Cu-X Alloys Invited	Break 20min	
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17:00	Nagase, Takeshi (Univ. Hyogo) In-situ observation of the growth of nano-scale dendrite by TEM, UHVEM and Network tele-microscopy	Honma, Tsuyoshi (Nagaoka Univ. Tech.) Laser-induced melting and crystal growth of NaFeO ₂	
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17:10		Kunimine, Takahiro (Kanazawa Univ.) Additive Manufacturing of Nanostructured WC-Co Cemented Carbides Granulated Powder via Laser Directed Energy Deposition	
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17:20	Break 20min	Suzuki, Asuka (Nagoya Univ.) Machine learning-aided laser parameter optimization and thermal conduction simulations for laser powder bed fusion of WC/Co composites	
17:25			
17:30		Ilman, Kholqillah Ardhan (Kanazawa Univ.) Controlling Bead Geometry, Microstructure and Interface by Multi-Beam Laser Directed Energy Deposition	
17:35	Sato, Kazuhisa (Osaka Univ.) Microstructure and solute segregation around the melt-pool boundary of orientation-controlled 316L austenitic stainless steel produced by laser powder bed fusion Invited	Park, Dongmin (Korea Inst. Ind. Tech.) Post-annealing behavior of Co-Cr-Mo alloys fabricated by directed energy deposition	
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18:20	Mizuno, Masakata (Osaka Univ.) The stability of vacancies in LPBF-manufactured 316L stainless steel and β -type Ti-15Mo-5Zr-3Al	Jeppsson, Johan (Thermo-Calc Software) The Thermo-Calc Additive Manufacturing Module: An integrated Calphad-based FEM tool	
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