

Schedule for 28th ISMANAM (2024)

Conference Venue: Conference Center, Building C, Songshan Lake Materials Laboratory (SLAB), Dongguan, Guangdong Province, China (No. 333 Pingdong Road, Dalang Town, Dongguan City)

Registration Time: September 15, 2024, from 14:00 to 21:00

Registration Location: Lobbies of the three designated hotels arranged by the organizing committee.

Sunday, 15 September

14:00 - 21:00	Registration Opens
18:30 - 21:30	Welcome Party At the cafeteria on the second floor of SLAB Building A1.
~21:30	Departing from SLAB Building A1 to return to Hyatt Regency Dongguan and Hampton by Hilton Dongguan Songshan Lake by bus.

Monday, 16 September

08:10	Departing from Hyatt Regency Dongguan and Hampton by Hilton Dongguan Songshan Lake to the SLAB venue by bus.
	SLAB Conference Center – Hall 206
08:45 - 09:00	Opening Ceremony
09:00 - 09:45	Plenary Lecture (Host: Jürgen Eckert) <u>Jan Schroers</u> Are Metallic Glasses Brittle or Ductile?

	Hall 206	Hall 204	Hall 203
	Topic: Mechanical properties Host: Anaël Lemaître	Topic: High entropy alloys Host: Yong Zhang	Topic: Relaxation, rejuvenation & aging Host: Tetsu Ichitsubo
09:50 - 10:20	Invited Talk <u>Lanhong Dai</u> Atomic-scale insights into emergence of shear bands in metallic glasses	Invited Talk <u>Zhaoping Lu</u> Glass transition and crystallization behavior of high entropy metallic glasses	Invited Talk <u>Yi Li</u> Rejuvenation of metallic glass through memory effect in various bulk metallic glasses
10:20 - 10:35	<u>Fucheng Li</u> Nanostructured amorphous solids: starting from size effects	<u>Jun Ding</u> Tuning point defects diffusions in multi-principal element alloys	<u>Jichao Qiao</u> Integrating dynamic relaxation with Inelastic deformation in metallic glasses: Theoretical insights and experimental validation
10:35 - 11:15	Group Photo (in front of the conference center building) / Coffee Break		
	Hall 206	Hall 204	Hall 203
	Topic: Mechanical properties Host: Lanhong Dai	Topic: High entropy alloys Host: Zhaoping Lu	Topic: Relaxation, rejuvenation & aging Host: Yi Li
11:15 - 11:45	Invited Talk <u>Anaël Lemaître</u> Stress correlation in amorphous solids	Invited Talk <u>Yong Zhang</u> Data driving design of high-entropy alloys for lightweight and dynamic applications	Invited Talk <u>Tetsu Ichitsubo</u> Controlling of glass heterogeneity supposed in fragile metallic glassformer towards an ultrastable state
11:45 - 12:00	<u>Qiaoshi Zeng</u> Plastic deformation of metallic glass under high pressure	<u>Hongxiang Chen</u> High-entropy Structure Design Strategies and Entropy Engineering of the Physical Properties in Layered Compounds	<u>Yuan Tan</u> Cryogenic internal friction measurement on the fast relaxation of vitreous metallic glasses
12:00 - 13:30	Lunch At the cafeteria on the second floor of SLAB Building A1.		

	Hall 206		
13:30 - 14:15	Plenary Lecture (Host: Jan Schroers) <u>Jürgen Eckert</u> Additive Manufacturing of Advanced Materials		
	Hall 206	Hall 204	Hall 203
	Topic: Mechanical properties Host: Jianzhong Jiang	Topic: High entropy alloys Host: Tongde Shen	Topic: Relaxation, rejuvenation & aging Host: Bo Zhang
14:20 - 14:50	Invited Talk <u>Zhefeng Zhang</u> Ductile-to-brittle transition criterion of metallic glasses	Invited Talk <u>Chuang Dong</u> Composition rule of silicate glasses in terms of the cluster-plus-glue-atom model	Invited Talk <u>Shuai Wei</u> Relaxations, Boson peaks, and fragilities: a comparison between amorphous phase-change materials and metallic glasses
14:50 - 15:05	Invited Talk <u>Jun Shen</u> Unraveling the Structural Origins of Compositional Sensitivity in Room-Temperature Plasticity of Metallic Glasses	<u>Wei Li</u> Multi-scale defects activation in GdCoAl-based high-entropy metallic glasses revealed by nanoindentation	<u>Junqiang Wang</u> Detecting relaxation units in metallic glasses
15:05 - 15:20		<u>Shuang Zhang</u> Cluster-model-based molecule-like structural units and composition formulas for high-entropy alloys	<u>Haibin Yu</u> Universal origin of glassy relaxation as recognized by configuration pattern matching
15:20 - 15:35	<u>Jie Li</u> Effect of loading mode on crack initiation in Zr ₆₁ Ti ₂ Cu ₂₅ Al ₁₂ bulk amorphous alloy	<u>Xiangyang Shen</u> Exploring high temperature deformation mechanism and microstructure evolution of Al _{0.1} TiZrTa _{0.7} NbMo refractory high entropy alloy	<u>Xilin Ning</u> Probing the microstructural heterogeneity of amorphous alloy: Based on the stress relaxation and creep
15:35 - 16:05	Coffee break		
	Hall 206	Hall 204	Hall 203

	Topic: Mechanical properties Host: Zhefeng Zhang	Topic: High entropy alloys Host: Chuang Dong	Topic: Relaxation, rejuvenation & aging Host: Shuai Wei
16:05 - 16:35	Invited Talk <u>Jianzhong Jiang</u> Super elastic behavior in disordered alloys	Invited Talk <u>Tongde Shen</u> A novel low-cost medium-entropy stainless steel with exceptional mechanical behavior over a wide temperature range	Invited Talk <u>Bo Zhang</u> Geological timescales' aging effects of lunar glasses
16:35 - 16:50	Invited Talk <u>Minqiang Jiang</u> Inertia effect of deformation in amorphous solids: a dynamic mesoscale model	<u>Xiaolei Han</u> Microstructure and mechanical properties of refractory TiZrHfNbSi _x high-entropy composites	<u>Qiang Luo</u> Atomic mechanism of Ultrastability in Metallic Glasses
16:50 - 17:05			<u>Yong Zhao</u> Ultrastable metallic glass by room temperature aging
17:05 - 18:00	Poster Session		
18:00 - 19:00	Dinner At the cafeteria on the second floor of SLAB Building A1.		
~19:00	Departing from SLAB Building A1 to return to Hyatt Regency Dongguan and Hampton by Hilton Dongguan Songshan Lake by bus.		

Tuesday, 17 September

08:20	Departing from Hyatt Regency Dongguan and Hampton by Hilton Dongguan Songshan Lake to the SLAB venue by bus.		
	SLAB Conference Center – Hall 206		
09:00 - 09:45	Plenary Lecture (Host: Alan Lindsay Greer) <u>En Ma</u> Crystallizing amorphous phase on 0.1 nanosecond time scale to enable non-volatile memory at SRAM speed		
	Hall 206	Hall 204	Hall 203
	Topic: Glass transition and crystallization Host: Dmitri Louzguine	Topic: Additive manufacturing Host: Lin Liu	Topic: High entropy alloys Host: Yuan Wu
09:50 - 10:20	Invited Talk <u>Ralf Busch</u> The effect of composition on the thermodynamics, structure, mechanical properties and atomic motion of (Pd-Pt) _{42.5} Cu ₂₇ Ni _{9.5} P ₂₁ alloys	Invited Talk <u>Kang Cheung Chan</u> Additive Manufacturing of high strength metallic glass lattice structures with excellent energy absorption	Invited Talk <u>Jianqiang Wang</u> Enhanced pitting corrosion resistance for high-entropy alloys by controlling the content and size of the L12 nanoprecipitates
10:20 - 10:35	<u>Fan Zhu</u> Critical phenomenon underlying the scaling relation between the kinetic fragility and the glass heterogeneity	<u>Jingyu Xu</u> Composition design, structure and properties of high-strength and heat-resistant Al alloys fabricated by additive manufacturing	<u>Mohammad Taghi Asadi Khanouki</u> Effect of temperature and strain rate on the temperature rise of shear bands operated in TiZrCuBeNi near equiatomic high-entropy bulk metallic glass
10:35 - 11:05	Coffee break		
	Hall 206	Hall 204	Hall 203
	Topic: Glass transition and crystallization Host: Ralf Busch	Topic: Additive manufacturing Host: Kang Cheung Chan	Topic: High entropy alloys Host: Jianqiang Wang
11:05 - 11:35	Invited Talk <u>Dmitri Louzguine</u> Rapid and unconventional nanocrystallization of metallic	Invited Talk <u>Lin Liu</u> Additive Manufacturing of Bulk Metallic Glasses: Structure and Properties	Invited Talk <u>Yuan Wu</u> Lightweight single-phase Al-based complex concentrated alloy with high specific

	glasses below the glass-transition temperature		strength
11:35 - 11:50	<u>Yonghao Sun</u> 1.7 Times thermal expansion from glass to liquid	<u>Pei Wang</u> Advanced Aluminum Matrix Composites fabricated by Laser Powder Bed Fusion	<u>Wei Yang</u> High Entropy Alloys for Potential Biomedical Applications
11:50 - 12:05	<u>Xing Tong</u> Formation of monatomic metallic glasses	<u>Lixia Xi</u> Laser additive manufacturing of Ti and Ce co-modified 2195 difficult-to-process aluminum alloys	<u>Jiacheng Zhang</u> High Entropy Alloys for biomedical applications
12:05 - 13:30	Lunch At the cafeteria on the second floor of SLAB Building A1.		
	Hall 206		
13:30 - 14:15	Plenary Lecture (Host: En Ma) <u>Alan Lindsay Greer</u> Extending the energy range of the glassy state in metals		
	Hall 206	Hall 204	Hall 203
	Topic: Soft magnetic & Fe-based MGs Host: Kefu Yao	Topic: Advanced preparation & characterization Host: Gang Wang	Topic: Simulation & modeling Host: Yujie Wang
14:20 - 14:50	Invited Talk <u>Shaoxiong Zhou</u> Development and applications of iron-based soft magnetic amorphous ribbons	Invited Talk <u>Tadeusz Kulik</u> Bulk metallic glasses structure and properties modification in low-temperature plasma	Invited Talk <u>Maozhi Li</u> Isothermal glass transition in metallic glasses
14:50 - 15:05	Invited Talk <u>Andy Shi</u> The Applications of Advanced High-Performance Soft Magnetic Materials	<u>Jiang Ma</u> The ultrasonic vibrations induced plasticity of metallic glasses	Invited Talk <u>Limin Wang</u> How could melting entropy of materials be connected with glass formation?
15:05 - 15:20		<u>Parthiban Ramasamy</u> Ultrasonic Atomization of Bulk Metallic Glass Powders	
15:20 - 15:35	<u>Fushan Li</u> Effect of Ga on Microstructure and Soft-Magnetic Properties of Fe _{83.3} Si ₂ B ₁₀ P ₄ Cu _{0.7} Nanocrystalline Alloy	<u>Haibo Ke</u> Controllable Structure and Superior Mechanical Properties of Metallic Glasses through Atomic Manufacturing	<u>Zheng Wang</u> The anharmonicity role of interatomic potential in predicting glass formation

15:35 - 16:05	Coffee break		
	Hall 206	Hall 204	Hall 203
	Topic: Soft magnetic & Fe-based MGs Host: Shaoxiong Zhou	Topic: Advanced preparation & characterization Host: Tadeusz Kulik	Topic: Simulation & modeling Host: Maozhi Li
16:05 - 16:35	Invited Talk <u>Kefu Yao</u> Recent research progress of high-performance Fe-based soft magnetic amorphous alloys	Invited Talk <u>Gang Wang</u> In-orbit solidification behavior of Zr-Cu-Ni-Al metallic glass-forming liquids	Invited Talk <u>Yujie Wang</u> Statistical Physics of Granular Matter
16:35 - 16:50	<u>Ivanna Kuchumova</u> Amorphous Fe-based coatings fabricated by detonation spraying	<u>Na Chen</u> Amorphous semiconductors from amorphous alloys	<u>Baoshuang Shang</u> Inverse abilities of glass forming and mechanical amorphization
16:50 - 17:05	<u>Md Akif Faridi</u> Wear behaviour of Fe-based metallic glass coating under different sliding wear conditions	<u>Jihan Zhou</u> 3D atomic interface between metal and amorphous oxide	<u>Huaping Zhang</u> Liquid-like atoms in dense-packed solid glasses
17:20 - 18:30	Departing from the conference venue to Hyatt Regency Dongguan.		
18:30 - 21:00	Mid-Autumn Festival Gala Dinner The lobby on the first floor of Hyatt Regency Dongguan.		
~21:00	Departing from Hyatt Regency Dongguan to SLAB Guest House by bus.		

Wednesday, 18 September

08:20	Departing from Hyatt Regency Dongguan and Hampton by Hilton Dongguan Songshan Lake to the SLAB venue by bus.		
	SLAB Conference Center – Hall 206		
09:00 - 09:45	Plenary Lecture (Host: Wei-Hua Wang) <u>Ruta Beatrice</u> Structure and Atomic motion in metallic glasses at high pressure		
	Hall 206	Hall 204	Hall 203
	Topic: Simulation & modeling Host: Ning Xu	Topic: Advanced preparation & characterization Host: Si Lan	Topic: Soft magnetic & Fe-based MGs Host: Baolong Shen
09:50 - 10:20	Invited Talk <u>Mark D. Shattuck</u> Universal distribution of cell shapes in active systems	Invited Talk <u>Prashanth Konda Gokuldoss</u> Novel interpenetrating composites by hybrid manufacturing technology	Invited Talk <u>Wei Zhang</u> Optimizing nanostructure and magnetic softness of Fe-Si-B-Cu nanocrystalline alloys via tailoring melt-spun structure by microalloying
10:20 - 10:35	<u>Yuanchao Hu</u> Origin of the boson peak in amorphous solids	<u>Hongbo Lou</u> Novel metallic glass states synthesized from extreme conditions	<u>Jing Zhou</u> Ultrahigh permeability at high frequencies via a magnetic-heterogeneous nanocrystallization mechanism in an iron-based amorphous alloy
10:35 - 11:05	Coffee break		
	Hall 206	Hall 204	Hall 203
	Topic: Simulation & modeling Host: Mark D. Shattuck	Topic: Advanced preparation & characterization Host: Prashanth Konda Gokuldoss	Topic: Composite materials Host: Wei Zhang

11:05 - 11:35	Invited Talk <u>Ning Xu</u> Similarities between self-propelled and sheared systems	Invited Talk <u>Kuan Gao</u> Application and market outlook of Liquidmetal (BMG) in China	Invited Talk <u>Baolong Shen</u> Dual-phase nano-glass-hydrides overcome the strength-ductility trade-off and magnetocaloric bottlenecks of rare earth based amorphous alloys
11:35 - 11:50	<u>Hailong Peng</u> Non-monotonic evolution of shear banding under random pinning in metallic glasses	<u>Si Lan</u> Decoding medium-range orders in amorphous alloys and their application in the construction of micro and nanostructures	<u>Xiaoling Fu</u> The Innate Interfacial Elastic Strain Field of a Transformable B2 Precipitate Embedded in an Amorphous Matrix
11:50 - 12:05	<u>Guojian Lyu</u> Adaptive central sum vectors for the atomic clusters in metallic glasses	<u>Yujun Xie</u> Diffraction imaging of hidden order in amorphous organic materials	<u>Anil Kumar Chaubey</u> Effect of Nd on microstructure and mechanical properties of Mg-Al alloy
12:05 - 13:00	Lunch At the cafeteria on the second floor of SLAB Building A1.		
~13:00	Departing from SLAB Building A1 to return to Hyatt Regency Dongguan and Hampton by Hilton Dongguan Songshan Lake by bus.		
14:00 - 15:00	Departing from Hyatt Regency, Hampton by Hilton, and SLAB Guest House to Shenzhen by bus.		
15:00 - 21:00	City Tour in Shenzhen.		
~ 21:00	Return to Hyatt Regency, Hampton by Hilton, and SLAB Guest House by bus.		

Thursday, 19 September

08:20	Departing from Hyatt Regency Dongguan and Hampton by Hilton Dongguan Songshan Lake to the SLAB venue by bus.		
	SLAB Conference Center – Hall 206		
09:00 - 09:45	Plenary Lecture (Host: Akihisa Inoue) <u>Wei-Hua Wang</u> Breaking the vitrification limitation of monatomic metals		
	Hall 206	Hall 204	Hall 203
	Topic: Glass forming liquids, dynamics & thermodynamics Host: Paul M. Voyles	Topic: Advanced preparation & characterization Host: Yong Yang	Topic: Catalytic properties Host: Zhe Jia
09:50 - 10:20	Invited Talk <u>Corey O'Hern</u> Predicting the glass-forming ability of alloys	Invited Talk <u>Jinn P. Chu</u> Metallic Glass for Fabricating Highly-Ordered Metallic Nanostructure Arrays	Invited Talk <u>Walter Jose Botta</u> Crystallization behaviors and electrochemical properties of multicomponent glassy and amorphous alloys
10:20 - 10:35	<u>Lina Hu</u> Modulating the Plastic Properties of Glasses from the Behavior of Supercooled Glass-forming Liquids	<u>Sajad Sohrabi</u> Engineering structure of bulk metallic glasses via ultrasonic vibration: Advances and Prospects	<u>Xiongjun Liu</u> Metallic glass catalysts for efficient water electrolysis
10:35 - 11:05	Coffee break		
	Hall 206	Hall 204	Hall 203
	Topic: Glass forming liquids, dynamics & thermodynamics Host: Corey O'Hern	Topic: Advanced preparation & characterization Host: Jinn P. Chu	Topic: Catalytic properties Host: Walter Jose Botta
11:05 - 11:20	Invited Talk <u>Paul M. Voyles</u> Complex Behavior of Supercooled Metallic Liquids: Composition-Dependent Dynamics and Two-Stage, Non-	Invited Talk <u>Yong Yang</u> Toughening metallic and oxide glasses by in situ chemical mixing/segregation	<u>Zhe Jia</u> “Ordered Structuralization” of Disordered Alloys Enhancing Water Electrolysis Catalytic Performance

11:20 - 11:35	Classical Crystal Nucleation		<u>Weimin Wang</u> The phases and properties of FePC glasses
11:35 - 11:50	Invited Talk <u>Mo Li</u> Entropies of multicomponent alloys	Invited Talk <u>Zhengwang Zhu</u> Scale manufacture of ductile Zr-based metallic glass sheets through twin-roll strip casting	<u>Huaijun Lin</u> Advances of high-pressure torsion (HPT) on the hydrogen storage and production properties of amorphous alloys
11:50 - 12:05			<u>Jia Chen</u> Roles of passive and non-passive elements on the passivation behavior of amorphous Al alloys in NaCl solution
12:05 - 13:00	Lunch At the cafeteria on the second floor of SLAB Building A1.		
13:00	Departing from SLAB Building A1 to return to Hyatt Regency Dongguan and Hampton by Hilton Dongguan Songshan Lake by bus.		
14:30 - 17:30	City tour in Dongguan.		
~17:30	Return to restaurant for the gala dinner.		
18:30 - 21:00	ISMANAM Award Gala Dinner. International Banquet Hall on the third floor of the Songhu Yingbinli Hotel		
~21:00	Return to Hyatt Regency, Hampton by Hilton, and SLAB Guest House by bus.		

Friday, 20 September

08:20	Departing from Hyatt Regency Dongguan and Hampton by Hilton Dongguan Songshan Lake to the SLAB venue.		
SLAB Conference Center – Hall 206			
09:00 - 09:45	Plenary Lecture (Host: Bo Zhang) <u>Akihisa Inoue</u> Development and Attractive Characteristics of High Entropy-Type Glassy and Amorphous Alloys		
	Hall 206	Hall 204	Hall 203
	Topic: Glass forming liquids, dynamics & thermodynamics Host: Jinliang Hu	Topic: Lunar glasses Host: Baoshuang Shang	Topic: Energy materials Host: Huaijun Lin
09:50 - 10:05	Invited Talk <u>Elke Sondermann</u> Atomic diffusion in metallic melts and the influence of gravity	<u>Laiquan Shen</u> Lunar glasses unveil the origins of lunar metallic iron	<u>Fuxiang Zhang</u> Effect of atomic disorder on the thermoelectric properties of Fe ₂ VAl-based Heusler alloys
10:05 - 10:20		<u>Ziqiang Chen</u> Super water-rich inclusions in the lunar impact glasses	<u>Zhenxuan Zhang</u> The application of metallic glass-based advanced oxidation processes (AOPs) in water treatment
10:20 - 10:35	<u>Bing Wang</u> Liquid-like dynamics of surface atoms in metallic glasses	<u>Rui Zhao</u> Origin and evolution of lunar glasses in space environments	<u>Chenghao Huang</u> Alkali-ion Batteries by Carbon Encapsulation of Liquid Metal Anode
10:35 - 11:05	Coffee break		
	Topic: Glass forming liquids, dynamics & thermodynamics Host: Elke Sondermann		
11:05 - 11:20	<u>Jinliang Hu</u>		

	The MSR technique and its application in diffusion measurements of liquid metals		
11:20 - 11:35	<u>Lijian Song</u> Isothermal relaxation behaviors and its influence on crystallization of metallic glass		
	Hall 206		
11:40 - 12:10	Closing Ceremony		
12:10 - 13:00	Lunch At the cafeteria on the second floor of SLAB Building A1.		
~13:00	Departing from SLAB Building A1 to return to Hyatt Regency Dongguan and Hampton by Hilton Dongguan Songshan Lake by bus.		

POSTERS LIST

Pos-01	Xiaoqing Du	Hydrogen isotope effect of nanoporous palladium
Pos-02	Chengfu Han	Achieving superior tensile properties by regulating dual-phase microstructure in Fe-based medium entropy alloy
Pos-03	Wei Li	Nanoindentation behaviors of metallic glass revealed by defect activation
Pos-04	M. M. Rezaei	Molecular dynamic Simulation of ternary $\text{Cu}_{46}\text{Zr}_{46}\text{Al}_8$ bulk metallic glass
Pos-05	Baoshuang Shang	Utilizing Frequency Domain Control to Modulate the Properties of Amorphous Alloys
Pos-06	Junzheng Wang	Rejuvenation in metallic glasses with different initial states through memory effect
Pos-07	Zhilin Wen	Breaking the mutual exclusion of mechanical-magnetic properties by constructing multi-scale heterogeneous structure in Fe-base composites
Pos-08	Jinting Xie	Effective method for pinpointing the optimum yttrium content to improve glass forming ability and mechanical properties in oxygen-contaminated Zr-based bulk metallic glasses
Pos-09	Hang Zhao	Controllable Structure and Mechanical Properties of Metallic Glasses through Atomic Manufacturing
Pos-10	Weihua Zhou	Effect of alloying oxygen on the mechanical properties and microstructure of industrial Zr-based bulk metallic glass
Pos-11	Yue-E Zhang	Breaking the vitrification limitation of monatomic metals