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## **Thursday, Feb. 21**

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Feb. 21, Morning Session,		Chair: Yoshihiro Iwasa		
8:55-9:00		Opening remark 5 min		
9:00-10:00	Lecture J1	Graphene optoelectronics and plasmonics for terahertz device applications	Taiichi Otsuji	Tohoku University
10:00-11:00	Lecture K1	Solid-state electronic devices using 2D materials	Hyun-Jong Chung	Konkuk University
11:00-11:20		20-min Break		
11:20-12:20	Lecture C1	Emerging two-dimensional materials beyond graphene	Yuanbo Zhang	Fudan University
12:20-13:30		Lunch		
Feb. 21, Afternoon Session,		Chair: Hyeonsik Cheong		
13:30-14:30	Lecture J2	Superconductivity in 2D Materials	Yoshihiro Iwasa	University of Tokyo
14:30-15:30	Lecture K2	Electrical contacts to two-dimensional semiconductors	Chul-Ho Lee	Korea University
15:30-15:50		20-min Break		
15:50-16:50	Lecture C2	Quantum anomalous Hall effect in magnetic topological insulators	Ke He	Tsinghua University
16:50-18:00		Poster Session		
18:30-20:30		Welcome Reception		

## **Friday, Feb. 22**

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Feb. 22, Morning Session,		Chair: Yuanbo Zhang		
9:00-9:30	Invited J1	Synthesis of boron nitride single crystals under high pressure and their properties	Takashi Taniguchi	NIMS
9:30-10:00	Invited K1	Engineering ferromagnetic lines in graphene by local functionalization using AFM lithography	Bae-Ho Park	Konkuk University
10:00-10:30	Invited C1	Quantum phase transition in 2D superconductors	Jian Wang	Peking University

10:30-10:50		20-min Break		
10:50-11:20	Invited J2	Electronic structures of topological materials clarified by spin- and angle-resolved photoemission spectroscopy	Masato Sakano	University of Tokyo
11:20-11:50	Invited K2	Novel states in stacked two-dimensional crystals	Young-Woo Son	Korea Institute for Advanced Study
11:50-12:20	Invited C2	Topological axion states in magnetic insulator $\text{MnBi}_2\text{Te}_4$	Haijun Zhang	Nanjing University
12:20-13:30		Lunch		
Feb. 22, Afternoon Session,		Chair: Jian Wang		
13:30-13:45	Contributed J1	Layer rotation angle dependent ultrafast charge transfer dynamics of interlayer excitons in vdW heterostructure	Pranjal Kumar Gogoi	AIST
13:45-14:00	Contributed J2	Room-Temperature Valley-Polarized Light-Emitting Devices <i>via</i> strained monolayer semiconductors	Jiang Pu	Nagoya University
14:00-14:15	Contributed K1	Suppression of magnetic ordering in XXZ-type antiferromagnetic $\text{NiPS}_3$ in atomically thin limit	Kang-Won Kim	Sogang University
14:15-14:30	Contributed K2	Topological and ferromagnetic properties of iron-based van der Waals metals	JunHo Seo	POSTECH
14:30-14:45	Contributed C1	Saddle points induced by band inversion in topological materials	Huaiqiang Wang	Nanjing University
14:45-15:00	Contributed C2	Electronic structure of exfoliated 2H- $\text{MoTe}_2$ atomically thin flakes by using NanoARPES	Hongyun Zhang	Tsinghua University
15:00-16:00		Lab tour		
16:00-18:00		Confucius Temple (科举博物馆)		
18:30-20:30		Banquet, Qinhuai River		

### **Saturday, Feb. 23**

Feb. 23, Morning Session,		Chair: Hongtao Yuan		
9:00-9:30	Invited J3	Autonomous robotic searching and assembly of two dimensional crystals to build van der Waals superlattices	Satoru Masubuchi	Univ. of Tokyo
9:30-10:00	Invited K3	Magnetic van der Waals: hopes and challenges	Je-Geun Park	Seoul National University

10:00-10:30	Invited C3	Photoemission Study of Topological Semimetals	Zhongkai Liu	ShanghaiTech University
10:30-11:00	Invited J4	High-resolution ARPES studies of atomic-layer group-V transition metal dichalcogenides	Katsuaki Sugawara	Tohoku university
11:00-11:10		Conclusion remark		

Nanjing A3 Meeting Poster Session: 16:50-18:00, Thursday Feb 21

Number	Title	Name	Affiliation
Poster-1	Terahertz light emitting and lasing operation in graphene-based heterostructure 2D material systems	Takayuki Watanabe	Tohoku University
Poster-2	Gate-Tunable Valley Polarization in WSe <sub>2</sub> Field-Effect Transistor	Keisuke Shinokita	Kyoto University
Poster-3	Nonreciprocal transport in noncentrosymmetric van der Waals crystals	Toshiya Ideue	University of Tokyo
Poster-4	Coexistence of charge ordering and 2D superconductivity in IrTe <sub>2</sub>	Sun-Gyu Park	POSTECH
Poster-5	Quantum transport in graphene/hexagonal boron nitride heterostructures	Takuya Iwasaki	NIMS
Poster-6	Observation of selective charge-density-wave pinning depending on the atomic structure of native defects in 2H-NbSe <sub>2</sub>	Eunseok Oh	POSTECH
Poster-7	Influence of Chemical Etching Treatment on Copper Foils for Single-Layer Graphene CVD Growth	Naoki Yoshihara	Fukuoka University
Poster-8	Synaptic devices implemented with two-dimensional layered single crystal chromium thiophosphate (CrPS <sub>4</sub> )	Mi-Jung Lee	Konkuk University
Poster-9	Gate-tunable room-temperature ferromagnetism in two-dimensional Fe <sub>3</sub> GeTe <sub>2</sub>	Yujun Deng	Fudan University
Poster-10	Spin-orbit-interaction - driven magnetic anisotropy in dimerized honeycomb-lattice ruthenate Li <sub>2</sub> RuO <sub>3</sub>	Seokhwan Yun	Seoul National University
Poster-11	Large-scale fabrication of highly-transparent solar cell with 2D material	Xing He	Tohoku University
Poster-12	Fuel cell based on AA'-stacked trilayer hexagonal boron nitride	Seong-In Yoon	UNIST
Poster-13	Light Soaking Phenomena in Organic-inorganic Mixed Halide Perovskite Single Crystals	Hye-Ryung Byun	Sungkyunkwan University
Poster-14	Visualizing the electronic structure of monolayer Bi <sub>2</sub> Sr <sub>2</sub> CaCu <sub>2</sub> O <sub>8+δ</sub>	Liguo Ma	Fudan University

Poster-15	Temperature-dependent phonon vibration and excitonic transition in a van der Waals heterostructure	Hamin Park	School of Electrical Engineering, KAIST
Poster-16	Spin-Valley dependent optical response at monolayer transition metal dichalcogenide/ferrimagnet interface	Takatoshi Akamatsu	The University of Tokyo
Poster-17	Thermo-driven Crystalline Phase Transition of Epitaxial Metastable 1T'-WSe <sub>2</sub> Thin Film	Wang Chen	Nanjing University
Poster-18	Spatially Resolved Electronic Structure of Bi <sub>2</sub> ST <sub>2-x</sub> La <sub>x</sub> CuO <sub>6+δ</sub> in the Two-dimensional Limit	Hengsheng Luo	Fudan University
Poster-19	Electronic structure of Weak topological insulator candidate CaSn studied by Angle Resolved Photoemission Spectroscopy	Lixuan Xu	ShanghaiTech University
Poster-20	Vertical 1T-TaS <sub>2</sub> synthesis on nanoporous gold for high-performance electrocatalytic applications	Yahuan Huan	Peking University
Poster-21	The properties of MoS <sub>2</sub> FET with functional TMPS gate insulators	Minjung Shin	Konkuk university
Poster-22	Wafer-scale epitaxial growth of 2D semiconductor single-crystal film	Congwei Tan	Peking University
Poster-23	Fabrication of Size-Controlled Graphene Quantum Dots Embedded in Hexagonal Boron Nitride monolayer	Gwangwoo Kim	UNIST
Poster-24	Raman study of polytypism in 2-dimensional Gallium Selenide	Soo-Yeon Lim	Sogang University
Poster-25	WS <sub>2(1-x)</sub> Te <sub>2x</sub> Alloy Monolayer grown by Chemical Vapor Deposition with Tunable Band Structures	Haolin Wang	Nanjing University
Poster-26	Van der Waals pn Junction Field Effect Transistors using Transition Metal Dichalcogenides	June-Yeong Lim	Yonsei University
Poster-27	Band Engineering in Epitaxial TMDC Alloy Mo <sub>x</sub> W <sub>(1-x)</sub> Se <sub>2</sub> thin films	Xuedong Xie	Nanjing University
Poster-28	Fowler-Nordheim Tunneling current modulation by controlling a barrier height in graphene/hexagonal boron nitride heterostructure	Junho Lee	Konkuk University
Poster-29	Integrated circuits based on chemical patterning of 2D Bi <sub>2</sub> O <sub>2</sub> Se	Tianran Li	Peking University

Poster-30	Experimental setup for second harmonic generation spectroscopy	Jungcheol Kim	Sogang University
Poster-31	Thermal stability study on 2D Bi <sub>2</sub> O <sub>2</sub> Se	Teng Tu	Peking University
Poster-32	Gap-mode Plasmon-Induced Photoresponse in Vertical Structure of Multilayer graphene	Khang-June Lee	KAIST
Poster-33	Generation of MoO <sub>x</sub> on the surface of MoTe <sub>2</sub> by O <sub>2</sub> plasma and its effect on MoTe <sub>2</sub> based transistors.	Yongjae Cho	Yonsei University
Poster-34	Ultralow-threshold whispering-gallery-mode lasing in CdS nanoplatelets	Liyun Zhao	Peking University
Poster-35	Towards Neutral Interlayer Exciton Transport in Transition Metal Dichalcogenide	Takamoto Yokosawa	The University of Tokyo
Poster-36	Electronic Structure of K-doped IrTe <sub>2</sub> Single Crystal Resolved by Angle-Resolved Photoemission Spectroscopy	Haoxiong Zhang	Tsinghua University
Poster-37	Polycrystalline Bi <sub>2</sub> O <sub>2</sub> Se thin film prepared with spin-coating method for flexible thin film transistors	Congcong Zhang	Peking University
Poster-38	Direct EL Imaging of Transition Metal Dichalcogenide Light-emitting Devices	Hirofumi Matsuoka	Nagoya University
Poster-39	Lasing in mechanically exfoliated single phase 2D perovskite crystals	Yin Liang	Peking University
Poster-40	Electric-field-induced Metal-Insulator Transition and Quantum Transport in Large-Area Polycrystalline MoS <sub>2</sub> Monolayers	Tomoyuki Yamada	Nagoya University
Poster-41	Local chemical modification of MoS <sub>2</sub> layer using AFM lithography	Dayea Oh	Konkuk University
Poster-42	Synaptic plasticity selectively activated by polarization-dependent energy-efficient ion migration in an ultrathin ferroelectric tunnel junction	Chansoo Yoon	Konkuk University
Poster-43	Na-assisted fast growth of large single-crystal MoS <sub>2</sub> on sapphire	Yuping Shi	Peking University
Poster-44	Electrical properties of individual CaVO (Calcium Vanadate) nanowire	HyunJeong Jeong	Ewha Womans Univ.

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Poster-45	2D hard ferromagnet $\text{Co}_2\text{FeGeTe}_2$	Inho Hwang	Seoul National University
Poster-46	Structurally engineered carrier dynamics in hybrid quasi-two-dimensional perovskite thin films	Qiuyu Shang	Peking University
Poster-47	Monolithic 2D Oxide/Semiconductor Superlattice for Efficient Light Emitters	Yoonseok Kim	Korea University

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