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POSTECH-NTHU

Online Conference

Advanced Technology for Well-being











Sessions

- Life Sciences
- Energy
- Big Data

Live Zoom

Thursday, August 19 2021

14:00 15:00

Pre-registration is required.

Register online at: https://bit.ly/3iQ7T9I until Aug 16, 2021

Registration

國立清華大學 NATIONAL TSING HUA UNIVERSITY

POSTECH POHANG UNIVERSITY OF SCIENCE AND TECHNOLOGY

國立清華大學
NATIONAL TSING HUA UNIVERSITY

National Tsing Hua University is located in Hsinchu City in northern Taiwan, an hour drive to Taipei, and is surrounded by world-class national laboratories and industries. Hsinchu is also referred to as the science city, the high-tech hub, and the Silicon Valley of Taiwan. NTHU has developed into a comprehensive research university offering a full range of degree programs in science, technology, engineering, humanities, social sciences, and management. The university now has 10 colleges: The Colleges of Science, Engineering, Nuclear Science, Humanities and Social Sciences, Life Science, Electrical Engineering and Computer Science, Technology Management, Tsing Hua, Education, and Arts.

NTHU is known for the following fields which rank within 50 in QS by subjects: Engineering &Technology, Electrical & Electronic, Mechanical Engineering & Materials Science. Also, we are known for Chemical Engineering, Chemistry, Computer Science, Linguistics, Physics & Astronomy, Statistics & Operational and Cancer (Nuclear) Studies in Taiwan. NTHU has the highest rate of faculty winning national academic accolades and their publications are cited most often among all universities in Taiwan. Our outstanding alumni highlight the success of NTHU students, including Nobel Physics laureates Dr. Cheng-Ning Yang and Dr. Tsung-Dao Lee, Nobel Chemistry laureate Dr. Yuan-Tseh Lee, and Wolf Prize winner in mathematics Dr. Shiing-Shen Chern.

POSTECH
POHANG UNIVERSITY OF SCIENCE AND TECHNOLOGY

Pohang University of Science and Technology was founded with the purpose of contributing to the nation and humanity by conducting in-depth science and engineering research on the profound theories and a wide range of applications essential to the advancement of Korea and the world, in addition to training a select pool of talented students to become future global leaders with both knowledge and honorable character through high-quality education and translating research outcomes into real-world applications realized through close collaboration with industry, academia and research institutions.

In order to fulfill this purpose, Pohang University of Science and Technology not only focuses on advanced research in diverse fields of basic science and engineering by cooperating closely with world-leading universities, but also strives to develop itself as a global hub for research related to the materials sector.

Pohang University of Science and Technology strives to become a world-class university by emphasizing well-rounded and specialized education to produce intellectuals with integrity, creativity and challenging spirit and by expanding the scope of industry-academia collaboration to improve human welfare.

TABLE OF CONTENTS

Program Schedule ---------- 3

List of Participants / Grouping ---------- 4

Profiles of Participants ---------- 5

Zoom Instructions ---------- 19

PROGRAM SCHEDULE

TIME	AUGUST 19, THURSDAY
14:00 - 14:15 Taipei Time **15:00 – 15:15** Seoul Time	Opening Remarks ▪ **Prof. Ta-Jen YEN**, Vice President for International Affairs, NTHU ▪ **Prof. Jong Kyu KIM**, Vice President of Planning, POSTECH Introduction of Participants
14:15 – 15:15 Taipei Time **15:15 – 16:15** Seoul Time	Breakout Sessions ▪ Session #1 Life Sciences ▪ Session #2 Energy ▪ Session #3 Big Data
15:15 – 15:30 Taipei Time **16:15 – 16:30** Seoul Time	Closing Session ▪ Brief Summary from Leaders of Each Session ▪ Closing Remarks from Prof. Yen and Prof. Kim ▪ Group Photo

LIST OF PARTICIPANTS / GROUPING

Session 1: Life Science		
NTHU	Prof. Lee-Wei YANG (leader)	Institute of Bioinformatics and Structural Biology
	Prof. Yu-Chun LIN	Institute of Molecular Medicine
	Prof. Hui-Yu TSAI	Institute of Nuclear Engineering and Science
POSTECH	Prof. Jie-Oh LEE (leader)	Department of Life Sciences

Session 2: Energy		
NTHU	Prof. Ta-Jen YEN (leader)	Department of Materials Science and Engineering
	Prof. Kuan-Che LAN	Institute of Nuclear Engineering and Science
	Prof. Zong-Hong LIN	Institute of Biomedical Engineering
POSTECH	Prof. Junsuk RHO (leader)	Department of Mechanical Engineering and Chemical engineering
	Prof. HangJin JO	Division of Advanced Nuclear Engineering
	Prof. Dong Sung KIM	Department of Mechanical Engineering

Session 3: Big Data		
NTHU	Prof. Wing-Kai HON (leader)	Department of Computer Science
	Prof. Che-Rung LEE	Department of Computer Science
POSTECH	Prof. Eunjin OH (leader)	Department of Computer Science and Engineering
	Prof. Dongwoo KIM	Department of Computer Science and Engineering

PROFILES OF PARTICIPANTS

SESSION 1: LIFE SCIENCES

Prof. Lee-Wei YANG

lwyang@life.nthu.edu.tw
Professor
College of Life Science
Institute of Bioinformatics and Structural Biology
Director, PhD program in Biomedical Artificial Intelligence
National Tsing Hua University

Research Outline

With our deep understanding in protein dynamics and structural biology, we have devised and used a broad spectrum of theoretical tools, physical models and chemical simulation methods at different resolutions to unravel the structure, dynamics and function relationship of life at the molecular levels. Our recent undertaking is to find multiple functional sites in a protein target and devise data-empowered first-principle simulations to accurately screen FDA drugs drugging on different sites of the same target as well as design the new drugs. See more on protein dynamics models: https://dyn.life.nthu.edu.tw/main/research-activities/

Looking for Collaborators in

People who are interested in improving the >95% attrition rate of new drugs through clinical trials and do not mind shifting the paradigm when needed.

Prof. Yu-Chun LIN

ycl@life.nthu.edu.tw

Associate Professor
Institute of Molecular Medicine
National Tsing Hua University
https://yuchunlab.wixsite.com/ycllab-at-nthu

Expertise

- Using chemicals and light to precisely manipulate the microtubule assembly and post-translational modifications.
- Sonogenetics: using ultrasound to stimulate genetically defined cells
- Visualizing the diffusion barrier in living cells

Research Outline

The development of approaches that control cellular activities has made it possible to dissect the underlying mechanisms of cellular events and to offer potential therapeutic applications. Dr. Lin's team has recently built a series of tools to manipulate molecular components and activities in living cells using various external stimuli such as chemicals, light, and focused ultrasound. More specifically, recent research topics include 1) Manipulating cellular activities using an ultrasound-chemical hybrid tool (Fan et al., ACS Synth Biol, 2017); 2) Spatiotemporal manipulation of tubulin post-translational modifications in primary cilia (Hong et al., Nat Commun, 2018; Yang et al., Front Cell Dev Biol, 2021); 3) Sonogenetic modulation of cellular activities using an engineered auditory-sensing protein (Huang et al., Nano Lett, 2020; Wu et al., Theranostics, 2020; Huang et al., Methods Mol. Biol. 2021; Fan et al., Nano Lett, in press); 4) Deciphering the role of phospholipids in myoblast fusion (Lian et al., J. Cell Sci, 2020). Very recently, Dr. Lin's team also developed various tools which uncovered a centrosomal diffusion barrier (Cheng et al., manuscript in preparation) and enabled spatiotemporally dissembling specific microtubules in living cells (Liu et al., Manuscript submitted). These established tools with great novelty will serve as catalysts to incorporate powerful new methodology and unique concepts to a wide range of scientific communities as well as offering new strategies for various non-invasive therapeutic applications

Looking for Collaborators in

- Transgenic models for studying how microtubules and microtubule-based structures regulate biological events.

Using ultrasound to noninvasively treat different animal disease models

Prof. Hui-Yu TSAI

huiyutsai@mx.nthu.edu.tw

Associate Professor

Institute of Nuclear Engineering and Science
National Tsing Hua University
https://yuchunlab.wixsite.com/ycllab-at-nthu

Expertise

- Radiation Protection in Medicine
- Medical Physics
- Boron Neutron Capture Therapy

Research Introduction

Dr. Tsai has 18 years of experience in radiation protection in medicine. Her research interest is on consideration of radiation safety regarding patients and medical staff in diagnostic imaging and radiation therapy. She has been collaborating with clinicians and scientists in radiology and radiotherapy. Her current research directions include the development of LET detector, national collective effective dose in medicine and occupational dose. Current research topics include (1) Development of LET detector for in-vivo measurements in Heavy Ion; (2) Study of medical radiation exposure for cone-beam computed tomography (CBCT) guided pulmonary intervention Therapy; (3) Impact of the adoption of eye-lens dose limit suggested by ICRP Report No. 118 on clinical medical workers: Survey of Hp(3) from occupational exposure of interventional and cardiological procedures and nuclear medicine; (4) Investigation on Medical Radiation Exposure of the Taiwan Population.

Looking for Collaborators in

- Linear energy transfer (LET) detector development such as thermal luminescent dosimeter, CR-39, Fluorescent nuclear track detector
- Application of machine learning/deep learning in medical imaging and radiation therapy
- Radiation protection in medicine

Prof. Jie-Oh LEE

jieoh@postech.ac.kr
Professor, POSTECH
Department of Life Science
Institute of Membrane Proteins
Director, Institute of Membrane Proteins
Member, The Korea Academy of Science and Technology
Pohang University of Science and Technology

Expertise

- Cryo-EM study of Toll-like Receptors
- Activation Mechanism of Cell Surface Receptors
- Structure based engineering of therapeutic antibodies

Research Outline

TLRs play central roles in innate immune defense against viral and bacterial infection. They recognize common patterns in a large number of microbial molecules and initiate potent immune responses against them. Prof. Lee's research group has determined the first crystal structures of TLR-ligand complexes. These structures have revealed the extraordinary diversity of TLR-ligand interactions. From Prof. Lee's structural observations, he has proposed a mechanism for receptor activation: ligand binding to the extracellular domains of receptors induces dimerization of the intracellular domains, which initiates signaling inside the cell by recruiting adaptor proteins to the receptor. In order to prove this hypothesis, we are trying to determine structures of complete TLR signaling complexes containing extracellular ligands and intracellular signaling proteins using cryo-EM.

The second research focus of his lab is developing therapeutic antibodies targeting membrane receptors. Monoclonal antibodies are the larges groups of biological therapeutics. The successful development of therapeutic antibodies often requires generation of a selective and potent molecule, humanization of sequences, affinity maturation, Fc engineering to modulate effector functions.

His lab is interested in determining large number of antibody structures in complex with their target proteins using a high speed cryo-EM method. Based on these structures, they design amino acid sequences that can improve performance of the antibodies. Affinity, specificity, stability and manufacturability of antibodies can be improved by this "structure-based antibody optimization process."

SESSION 2: LIFE SCIENCES

Prof. Ta-Jen YEN

tjyen@mx.nthu.edu.tw

Professor
Department of Materials Science and Engineering
Vice President for Global Affairs
National Tsing Hua University

Expertise

- Metamaterials, Plasmonics, Nano-photonics
- Nano-devices for biological/chemical detection and green energy
- 2D materials and their hybridization with metamaterial and/or plasmonic systems

Six Selective Publication

- Ta-Jen Yen, W. J. Padilla, N. Fang, D. C. Vier, D. R. Smith, J. B. Pendry, D. N. Basov, X. Zhang*, “Terahertz Magnetic Response from Artificial Materials”, Science (2004)
- Chia-Yun Chen, Chi-Sheng Wu, Chia-Jen Chou and Ta-Jen Yen*, “Morphological Control of Single Crystalline Silicon Nanowire Arrays Near-Room Temperatures”, Advanced Materials (2008)
- Yueh-Chun Lai, Hsin-Cheng Lee, Shu-Wen Kuo, Cheng-Kuang Chen, Hsieh-Ting Wu, Oscar K. Lee and Ta-Jen Yen*, “Label-free, coupler-free, scalable and intra cellular bio-imaging by multi-mode plasmonic resonances in spilt-ring resonators”, Advanced Materials (2012) Ruei-Han Jiang, Chi Chen, Ding-Zheng Lin, He Chun Chou, Jen-You Chu* and Ta-Jen Yen*, "Near-Field Plasmonic Probe with Super Resolution and High Throughput and Signal-to-Noise Ratio", Nano Letters (2018)
- Pavithra Sriram, Dong-Sheng Su, Sheng-Wen Wang, Arumugam Manikandan, Arun Prakash Periasamy, Huan-Tsung Chang, Yu-Lun Chueh and Ta-Jen Yen*, “Hybridizing Strong Quadrupole Gap Plasmons using Optimized Nanoantennas with Bilayer MoS2 for Excellent Photoelectrochemical Hydrogen Evolution”, Advanced Energy Materials (2018)
- Abhishek Dubey, Ragini Mishra, Yu-Hung Hsieh, Chang Wei Cheng, Bao-Hsien Wu, Lih-Juann Chen, Shangjr Gwo*, Ta-Jen Yen*, “Ultraviolet Plasmons empowered photodetector of ultrahigh responsivity, detectivity, and broad bandwidth using single-crystalline Aluminum nanoholes array”, Advanced Science (2020), 2002274

Looking for Collaborators in

The relevant research expertise/interests aforementioned. Also, welcome collaboration about other expertise/interest

Prof. Zong-Hong LIN

linzh@mx.nthu.edu.tw

Associate Professor
Department of Power Mechanical Engineering
Institute of Biomedical Engineering
National Tsing Hua University

Expertise

- Human body energy harvesting
- Self-powered physical and (bio)chemical sensors
- Biomedical diagnostic devices
- Wearable healthcare electronics
- Micro- and nano-electrodes/materials for in-vitro and in-vivo applications

Research Intro

Self-powered nanosensors based on triboelectric and thermoelectric effects: The self-powered nanosensors developed by Dr. Lin's group can function without external power supply. By directly converting mechanical energy or thermal energy into electric outputs (means can be triggered by mechanical motion or temperature difference), the output values of the developed nanosensors will be varied upon the sensing of target molecules or ions. With the simplicity (no complex circuitry or power supply involved), low-cost fabrication (smallsized; minimal and low-priced materials required) and label-free sensing mechanism, the developed self-powered nanosensors demonstrate great potential to serve as new prototypes of portable devices for the in-field sensing of samples.

Wearable systems for self-powered healthcare applications: As far as the development of wearable electronics is concerned, power supply has always been the bottleneck to overcome. Dr. Lin's group utilized commercial textiles and proteins/hydrogels to fabricate biocompatible, portable, and lightweight nanogenerators to harvest biomechanical energy from human motions or thermal energy in the environment to directly power wearable electrochemical systems for humidity/temperature/sweat detections (ions, glucose, and lactate) and antibacterial applications. The developed wearable systems also show their adaptability to be integrated with next-generation smart clothes. This innovative concept is going to furtherly demonstrated to harvest the kinetic energy of blood flow (powering the implanted electronics) and design for the self-powered detection of biomarkers.

Looking for Collaborators

Any interesting projects related to energy harvesting and self-powered application

Prof. Kuan-Che LAN

kclan@mx.nthu.edu.tw

Associate Professor
Institute of Nuclear Engineering and Science
Department of Engineering and System Science (Joint Appointed)
National Tsing Hua University

Expertise

- Mechanical and corrosion behavior of high temperature materials.
- Surface and coating technology
- Cellular automaton (CA) simulation on metallic materials

Research Introduction

Dr. Lan's research interest is on the mechanical and corrosion behavior of Zircaloy and high temperature materials applied in the power system. His has been collaborating with scientists in surface modification to enhance the performance of material in harsh environment and corresponding in-situ measurement of material properties. Current research topics include (1) Study of the mitigation on hydrogen absorption of nuclear fuel claddings. (2) Study of the oxidation behavior Haynes 282 in high temperature air with moisture. (3) Study of Laser annealing on the mechanical performance of Ni-based superalloy. (4) Study of the effect of the proton radiation exposure on the thermal properties of beryllium.

Looking for Collaborators in

- Application of machine learning/deep learning in the prediction of microstructure-property.
- In-situ measurement of mechanical and corrosion properties using synchrotron radiation.
- Neutron / Proton/ Heavy ion radiation exposure on high temperature alloys.

Prof. Junsuk RHO

jsrho@postech.ac.kr

Adjunct Professor
Department of Mechanical Engineering & Chemical Engineering
Department of IT Engineering / School of Artificial Intelligence, POSTECH
Director of POSCO-POSTECH-RIST Convergence Research Center for Flat Optics & Metaphotonics (cFOM)
Mu-Eun-Jae Endowed Chair Professor & Young Distinguish Professor, POSTECH
POSTECH-Samsung Semiconductor Educational Program (PSEP), POSTECH
Samsung Advanced Institute of Technology (SAIT), Samsung Electronics
School of Interdisciplinary Bioscience and Bioengineering, POSTECH
School of Integrated Technology, Yonsei University (POSTECH-Yonsei Open Campus)
Pohang University of Science and Technology

Expertise

- Metamaterials and Plasmonics
- Scalable and 3D Nanofabrication
- Super-Resolution Imaging Techniques
- Next-Generation Display Technology
- Planar and Flat Photonic Components

Research Introduction

Rho's research group is not only developing a new concept of novel optical nanomaterials having extraordinary and unprecedented eletromagnetic properties based on fundamental physics and experimental studies of deep sub-wavelength light-matter interaction, but also realizing engineering device applications including, but not limited to, super-resolution imaging, negative index materials, tunable high refractive index metasurface, highly efficient light trapping device, ultra-sensitive biomedical sensor, nanoscale laser, next generation scalable nanomanufacturing methods and deep-learning-based design methodologies.

Prof. Dong-Sung KIM

smkds@postech.ac.kr

Mu-Eun-Jae Chair Professor, POSTECH
Professor, Department of Mechanical Engineering, POSTECH
Adjunct Professor, Department of Chemical Engineering, POSTECH
Adjunct Professor, Institute for Convergence Research and Education in Advanced Technology, Yonsei University
Member of Young Korea Academy of Science and Technology (Y-KAST)
Pohang University of Science and Technology

Expertise

- Discrete liquid-solid contact electrification and triboelectric nanogenerators
- Polymer/Hydrogel nanomanufacturing for advanced cell culture platforms
- Polymer micromanufacturing for functional surfaces and microfluidic devices

Research Introduction

The concept of “discrete liquid-solid contact electrification (DLSCE)” is a result of the sequential process of the liquid contact on the solid surface and successive detachment of contact liquid from the solid surface. After the first report on DLSCE, the phenomenon has been deeply investigated and explored. As a result, the DSLCE has been utilized as a fundamental operation mechanism of liquid sensors and the energy harvesters called a triboelectric nanogenerator (TENG).

In this presentation, the history from the discovery of DLSCE in the conventional pipetting to its application to the TENG is introduced. Especially, several biomimetic approaches were applied to the TENG not only to enhance the electrical output as an energy harvester but also to give an additional function for practical applications. The present study would broaden the applications of discrete liquid-solid contact electrification, which is ubiquitous but previously inconspicuous in our daily life.

Prof. Hang-Jin JO

jhj04@postech.ac.kr

Assistant Professor
Department of Mechanical Engineering
Division of Advanced Nuclear Engineering
Pohang University of Science and Technology

Expertise

- Heat & Fluid Transfer Phenomena
- Boiling and Condensation on Engineered Surfaces
- Advanced Energy Systems
- Thermal, Energy Sensing Devices
- High Fidelity Stimulation for Heat Transfer Phenomena

Research Introduction

Prof. HangJin Jo's research interests focus on exploring the underlying physics of thermal-hydraulics and extending the knowledge for advanced energy systems including nuclear power plant systems. His areas of expertise include experimental and analytical investigation on two-phase heat transfer (boiling and condensation), natural/forced two-phase flow development and radiation heat transfer. His research applies not only to general engineering problems but also to specific energy systems. e.g., nuclear power plant system. In a nuclear reactor, harsh environments (e.g., high pressure, high temperature, multi-components and two-phase flow) present unique and exciting challenges to thermal-hydraulic scientists and engineers for the development, testing, and characterization of current and future reactor systems. Therefore, Dr. Jo has extended the understanding of thermal-hydraulics for developing safer nuclear reactors and efficient energy systems.

SESSION 3: BIG DATA

Prof. Wing-Kai HON

wkhon@cs.nthu.edu.tw

Professor
Department of Computer Science
National Tsing Hua University

Expertise

- Text Indexing / Pattern Matching
- Data Structures
- Combinatorial Optimization

Research Intro

For many years, Wing-Kai's main research area has been on compressed text indexing, where the target is to design data structures for an input text with close-to-optimal space so as to support efficient queries on the text. This research has real applications in bioinformatics, since most biological sequences to be indexed are extremely long, so that space-efficient schemes are mandatory. Recently, Wing-Kai also studies representing a graph with a compact summary, so that a large graph, such as a road network, can be maintained as a union of some smaller subgraphs, so that queries on the large graph can be reduced to queries in the compact summaries of the subgraphs, allowing parallelism in query processing and more flexibility in graph updates

More details on Wing-Kai's work can be found on DBLP.

Looking for Collaborators in

- Compressed Text Indexing
- Graph Summaries and Algorithms
- Combinatorial Optimization

Prof. Che-Rung LEE

cherung@cs.nthu.edu.tw

Associate Professor
Department of Computer Science
National Tsing Hua University

Expertise

- Scientific computing, numerical algorithms.
- High performance computing, GPU / accelerators applications.
- Model reduction and performance optimization for deep learning / computer vision.

Research Intro

The major research interest of Prof. Lee is applying HPC techniques, such as parallelization, acceleratorization, matrix/tensor computation, to various domains and applications. Originally, he worked on the performance enhancement of quantum Monte Carlo simulations for large scaled systems, including communication avoiding algorithms, later on, he delved into the GPU performance optimization for cloud and big data processing. His research focus does not only include the GPU performance tuning for various algorithms and applications, but also the system software for better GPU utilization on cloud and big data processing systems, such as GPU virtualization and scheduling. Recently, he started the work about using the HPC techniques for deep learning training and inference. His recent work includes model reduction and model robustness enhancement for deep learning and computer vision neural networks. He also worked closely with industry to learn and solve real world problems.

Looking for Collaborators in

- Large scale of applications that require the performance optimization
- Applications involve intensive numerical algorithms such as deep learning
- Model reduction for deep learning and computer vision
- GPU and other accelerators performance optimization
- Numerical methods for solving large scaled problems

Prof. Eunjin Oh

eunjin.oh@postech.ac.kr

Assistant Professor
Department of Computer Science and Engineering
Pohang University of Science and Technology (POSTECH)

Research Interest & Expertise:

- Computational and Discrete Geometry
- Algorithms and Data Structures
- Theory of Computation

Research Intro

My research focuses on designing efficient parameterized and approximation algorithms for geometric problems such as clustering problems and classic NP-complete problems on geometric intersection graphs. Also, I have been working on fundamental problems in computational geometry including the point location problem, shortest path problem and range searching problem.

Prof. Dongwoo KIM

dongwookim@postech.ac.kr

Assistant Professor
Department of Computer Science and Engineering
Pohang University of Science and Technology (POSTECH)

Research Interest & Expertise:

- Machine Learning
- Probabilistic Generative Models
- Bayesian Nonparametric
- Computational Social Science

Research Intro

A vast amount of information is digitized and stored into various forms. Despite the collaborative effort to organize the information into structuralized forms, a large body of the stored information still remains in unstructured forms such as text and images. Prof. Kim structuralizes the unstructured data by inferring hidden structures which cannot be directly observed from the data. In his research approach, he aims to infer the hidden structure of data by 1) extracting a common sub-structure that have been frequently appeared throughout the data 2) defining a latent variable model based on a plausible generative process of the data.

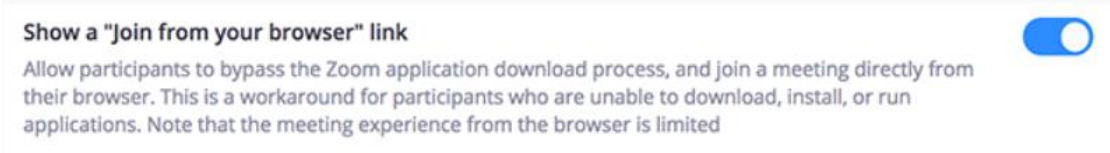
ZOOM INSTRUCTIONS

1. Joining Zoom

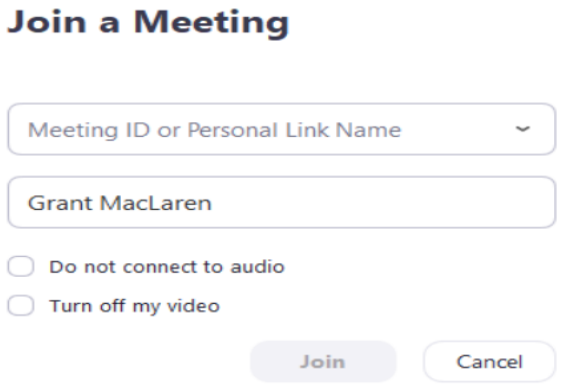
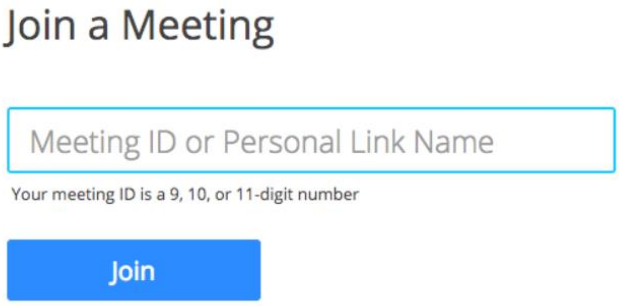
   i. Participants are required to register in advance and use the same account to join the Zoom meeting then. Participants can use Zoom through the Zoom application preferably or the Zoom Web Client with limited functionality. (To register, please click https://bit.ly/3iQ7T9I)

   ii. You will need the **Meeting ID** and **Zoom account** to join a video call online through **a link sent** by the host

   - To join from your Browser, enable Join from Browser



   - Please **name** the participant in the format as: (your name) _session (#) _(university)

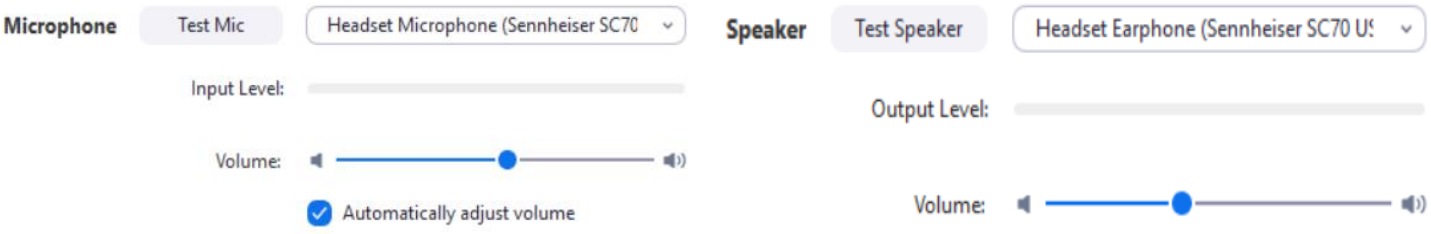
Zoom Application	Zoom Web Client
	

2. Before Joining the Meeting

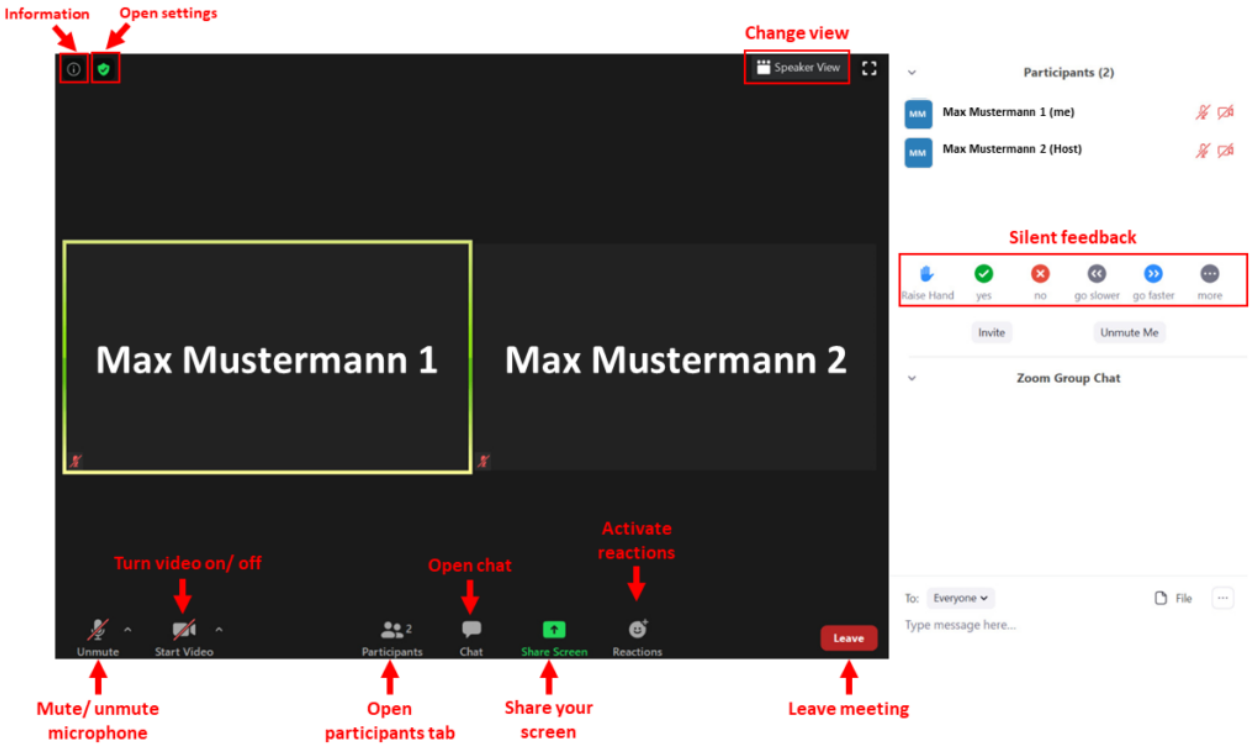
i. Check Network Connection; wired network is recommended to ensure network stability

ii. Conditions of microphones and speakers to avoid complications

iii. Test your microphones and speakers before attending the meeting
- Testing functions are available in the application

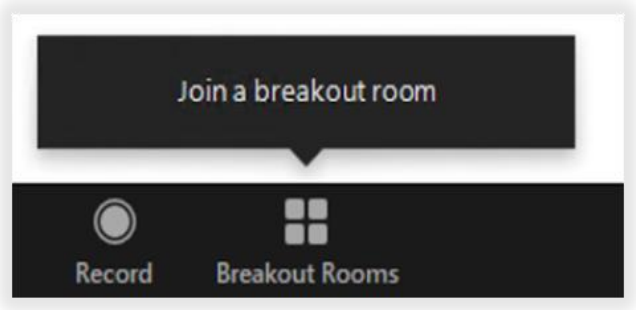


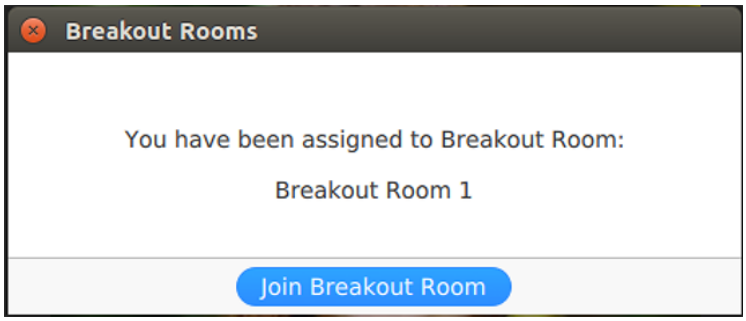
iv. Familiarize **Meeting Controls**; mute/unmute, start/ stop video, camera and audio control, and share content function



3. Breakout rooms

i. You will need to be invited to the breakout room by the host. Click the Join button. If you select Later, you can attend the meeting by selecting Breakout Rooms in the meeting controls. Click the Join Breakout Room button





4. Troubleshooting

i. Echo
- Attending meeting in more than one device
- Speakers from more than one device are near each other

ii. Speaker

- Speaker, in the top-left corner, is switched off
- Consider using earphones
- Zoom's speaker may be switched off to mute
- Restart or reinstalled applications

iii. Microphone

- Microphone is muted either by the host or yourself
- Ascertain audio is connected by giving permission to devices
- Consider using earphones
- Close external apps that may have interfered
- Restart or reinstalled application