

Announcement #3

<AMS2022, 13th Asian Microgravity Symposium>

October 24-28, 2022, Ramada Plaza Hotel, Jeju, Korea



3rd Announcement

13th Asian Microgravity Symposium–2022

October 24 – 28 (Monday to Friday), 2022

Ramada Plaza Hotel, Jeju, Korea

Background:

Recently researches utilizing microgravity environment become important because of ‘New Space Era’ and manned moon and Mars exploration program. The Asian Microgravity Symposium (AMS) was established in 1993 and has grown into a very productive international meeting for microgravity science. The earlier ten symposiums had been held five times in China, four times in Japan and once in Korea. The 10th AMS held in Seoul, Korea (formally named as AMS2014) was the first official symposium named as ‘The Asian Microgravity Symposium’. Since then, we have seen the more international interests through AMS2016 (Sapporo, Japan) and AMS2018 (Zhuhai, China).

After two years of delay because of Coronavirus Pandemic and such delay was agreed by Chinese, Japanese and Indian communities, AMS2022 (the 13th AMS) will be held on Oct. 24-28, 2022 at the Ramada Plaza Hotel, Jeju, Korea. AMS2022 aims to provide an international forum for presentation, exchange of ideas, and creation of knowledge in recent advances on various aspects of microgravity researches and other related fields including microgravity sciences &

July 15th, 2022

technologies, space medicine, newly emerging space microgravity industries and selection and training astronauts. It will bring together researchers and practitioners from academia, research institutions and industries to exchange experiences, disseminate up-to-date information, and explore new opportunities. In particular, it will motivate young and new researchers to the state of the art in the microgravity research fields. Participants not only from Asian countries but also from all over the world are anticipated to share their research and friendship.

Symposium Scope:

AMS2022 will focus the following 13 topics (but not limited to)

- *Combustion and Chemical Physics* - *Heat and Fluid Physics*
- *Material Sciences* - *Thermophysical Properties*
- *Levitation (Electrostatic, Acoustic etc.)* - *Crystal Growth and Soft Matters (Protein & Colloid)*
- *Fundamental Physics* - *Life Science and Biotechnology*
- *Ground-based Microgravity Research and Facilities (Drop Tower, Parabolic Flight etc.)*
- *Space & Microgravity Industries (New)* - *Space Medicine and Astronaut (New)*
- *Space Experiments utilizing Small Satellites (New)*
- *Manned Space Mission, Manned Space Policy & Strategy (New)*

Symposium Chairs:

Chair

Gi-Hyuk CHOI, Korea (President of KMS)

Co-chairs (TBD)

Jian-Fu ZHAO, China (President of NSMSA/CSSR)

Wei ZHANG, China (CSU/CAS)

Hiroshi NOMURA, Japan (President of JASMA)

Amit KUMAR, India (IIT Madras)

Joo-Hee LEE, KARI, Korea (Vide-President of KMS)

Session Organizers:

Session	Technical Contact Point/Session Organizer
Combustion and Chemical Physics	Prof. Jeong PARK (jeongpark@pknu.ac.kr) Prof. Jae-Hyuk CHOI (choi_jh@kmou.ac.kr) Prof. Mitsuaki Tanabe (tanabe.mitsuaki@nihon-u.ac.jp) Prof. Shuang-Feng WANG (sfwang@imech.ac.cn) Prof. You-Cheng LIU (ycliu7@tsinghua.edu.cn) Dr. Amit Kumar (amitk@ae.iitm.ac.in)
Heat and Fluid Physics	Prof. Seul-Hyun PARK (isaac@chosun.ac.kr) Prof. Sung-Hwan YOUN (shy@kmou.ac.kr) Prof. Ryoji Imai (r_imai@mmm.muroran-it.ac.jp) Prof. Kai LI (likai@imech.ac.cn) Prof. Yong-Hai ZHANG (zyh002@xjtu.edu.cn) Dr. Diwakar Venkatesan (JNCASR) (diwakar@jncasr.ac.in) Dr. Rishi Raj (IIT Patna)(rraj@iitp.ac.in)
Levitation (Electrostatic, Electromagnetic, Acoustic, Aerodynamic)	Dr. Geun-Woo LEE (gwlee@kriss.re.kr) Dr. Takehiko Ishikawa (ishikawa.takehiko@jaxa.jp) Prof. Qiang YU (yuqiang@nssc.ac.cn)
Fundamental Physics	Prof. Chang-Soo LEE (hadum@cnu.ac.kr) Dr. Kazuo Takahashi (takahash@kit.jp) Prof. Liang LIU (liang.liu@siom.ac.cn) Prof. Ze-Bing ZHOU (zhouzb@mail.hust.edu.cn)
Thermophysical Properties (Measurements & Properties)	Prof. Joon-Ho Lee (joonholee@korea.ac.kr) Prof. Sumpei Ozawa (sumpei.ozawa@it-chiba.ac.jp) Prof. Xing-Hong LUO (xhluo@imr.ac.cn) Dr. A. Murugaiyan (murugaiyan@iitm.ac.in)
Material Sciences (Metals and Alloys, Ceramics, Semiconductors, Soft matters)	Prof. Joon-Ho Lee (joonholee@korea.ac.kr) Prof. Masahito Watanabe (masahito.watanabe@gakushuin.ac.jp) Prof. Xing-Wang ZHANG (xwzhang@semi.ac.cn) Dr. A Murugaiyan (murugaiyan@iitm.ac.in)
Crystal Growth and Soft Matters (Protein & Colloid)	Prof. Chang-Soo LEE (rhadum@cnu.ac.kr) Prof. Katsuo Tsukamoto (katsuo.tsukamoto.d6@tohoku.ac.jp) Prof. Ming-Ying HOU (mayhou@iphy.ac.cn)
Space Experiments utilizing Small Satellites	Dr. Joo-Hee LEE (jhl@kari.re.kr) Prof. Hiroki Nagai (nagai.hiroki@tohoku.ac.jp) Prof. Hao HUANG (huanghao@azspace.cn)
Life Science and Biotechnology (Microbiology, Plants, Foods, Radiational and Gravitational Effect)	Prof. Jun-Soo PARK (junsoo@yonsei.ac.kr) Prof. Jin-Il LEE (jinillee@yonsei.ac.kr) Prof. In-Ho CHOI (icho@yonsei.ac.kr) Prof. Takeshi Nikawa (nikawa@tokushima-u.ac.jp) Prof. Hui-Qiong ZHENG (hqzheng@sibs.ac.cn) Prof. Shu-Jin SUN (sunshj@imech.ac.cn) Dr. Alope Kumar (alokekumar@iisc.ac.in)
Space Medicine and Astronaut	Prof. Kyu-Sung KIM (stedman@inha.ac.kr) Prof. Junpei Yamanaka (yamanaka@phar.nagoya-cu.ac.jp) Prof. Ying-Hui LI (yinghudd@vip.sina.com) Prof. Lian-Wen SUN (sunlw@buaa.edu.cn)
Ground-based Microgravity Research and Facilities/Techniques of Microgravity Experiments, Parabolic Flights	Dr. Youn-Kyu KIM (ykkim@kari.re.kr) Dr. Ryoji Imai (r_imai@mmm.muroran-it.ac.jp) Dr. Hirohisa Oda (oda.hirohisa@jaxa.jp) Prof. Qi KANG (kq@imech.ac.cn) Prof. Jian-Quan ZHANG (jqzhang@csu.ac.cn) Dr. Amit Kumar (amitk@ae.iitm.ac.in)
Space & Microgravity Industries	Dr. Gi-Hyuk CHOI (gchoi@kari.re.kr) Dr. Tetsuya Sakashita (sakashita.tetsuya@jaxa.jp) Prof. Jian-Yin MIAO (miaojianyin@hotmail.com) Dr. T. Jayachandran (jayan22466@gmail.com)
Manned Space Mission, Manned Space Policy & Strategy etc.	Dr. Joo-Hee LEE (jhl@kari.re.kr) Dr. Mika Ochiai (ochiai.mika@jaxa.jp) Dr. Shiho Ogawa (ogawa.shiho@jaxa.jp) Prof. Wei ZHANG (zhangwei@csu.ac.cn)

Organizing Committee

Korea:

Won Seung CHO, IU (Honorable)

Inho CHOI, YU, (Honorable)

Chang-Soo LEE, CNU

Tae-Sung YOON, KRIBB

Jeong PARK, PKNU

Joo-Hee LEE, KARI

Junsoo PARK, YU

Youn-Kyu KIM, KARI

China:

Wei-Ming CAI, SIPPE/CAS

Hang GUO, BJUT

Mei-Ying HOU, IP/CAS

Long-Hua HU, USTC

Kai LI, IM/CAS

Liang LIU, SIOM/CAS

You-Cheng LIU, THU

Wei-Hua WANG, IP/CAS

Bing-Chen WEI, IM/CAS

Hai ZHANG, THU

Xing-Wang ZHANG, IS/CAS

Yong-Hai ZHANG, XJTU

Japan:

Jun HIDEEMA, TU

Yuko INATOMI, JAXA

Osamu KAWANAMI, UH

Masao KIKUCHI, JAXA

Kensei KOBAYASHI, YNU

Tadahiko MASAKI, SIT

Satoshi MATSUMOTO, JAXA

Takeshi NIKAWA, TU

Akihisa TAKAHASHI, GU

Hideyuki TAKAHASHI, TU

India:

Sathyan SUBBHIA (IITM)

T M MURUGANANDAM (IITM)

Shaligram TIWARI (IITM)

Scientific Committee

Korea:

Jae-Hyuk CHOI, MU
Kyu-Sung KIM, IU
Geun Woo LEE, KRISS
Jin-Il LEE, YU
Joonho LEE, KU
Yoo Kyung LEE, KOPRI
Seul Hyun PARK, CU

China:

Wang-Fang DU, IM/CAS
Jiang HE, CAST
Zhen-Hui HE, SYSU
Hao HUANG, AZSPACE
Qi KANG, IM/CAS
Ding LAN, IM/CAS
Ying-Hui LI, ACC
Mian LONG, IM/CAS
Xing-Hong LUO, IMR/CAS
Jian-Yin MIAO, CAST
Shuang-Feng WANG, IM/CAS
Chao YANG, IPE/CAS
Tao ZHANG, SITP/CAS
Hui-Qiong ZHENG, SIPPE/CAS
Ze-Bing ZHOU, HUST

Japan:

Akira HIGASHIBATA, JAXA
Atsushi HIGASHITANI, TU
Ryoji IMAI, MIT
Osamu IMAMURA, NU
Takehiko ISHIKAWA, JAXA
Yuki KIMURA, HU
Yoshiaki KITAYA, OPU
Yuji NAKAMURA, TUT
Ozawa SHUMPEI, CIT
Kouichi SOGA, OCU
Yoshihiko TANAKA, GUMS
Kaori TOMITA-YOKOYA, TU
Ichiro UENO, TUS
Masahito WATANABE, GU
Sachiko YANO, JAXA

Yukari YOSHIDA, GU

India:

Amrithalingam MURIGAYIYAN (IITM)

Rishi RAJ (IIT Patna)

Diwakar VENKATESAN (JNCASR)

Aloke KUMAR (IISc)

T JAYACHANDRAN (IITM)

Israel:

Ilya B. SIMANOVSKII, Technion

Malaysia:

R.N.Z.R. ABD RAHMAN, UPM

Symposium Organizers:

Korean Microgravity Society (KMS), Korea

Chinese Academy of Sciences (CAS), China

National Society of Microgravity Science and Application (NSMSA), China

Japan Society of Microgravity Application (JASMA), Japan

Japanese Society for Biological Sciences in Space (JSBSS), Japan

Sponsors:

Korea Aerospace Research Institute (KARI), Korea

National Science Foundation of China (NSFC), China

Japan Aerospace Exploration Agency (JAXA), Japan

Important Dates and Remarks:

Mar. 1, 2022 Homepage opening

Apr. 11, 2022 Starting date for Abstract Submission

Aug. 21, 2022 Deadline for Abstract Submission

Aug. 24, 2022 Acceptance Notice

Aug. 29, 2022 Registration start

Sep. 30, 2022 Deadline for early-bird registration

Oct. 24-28, 2022 Conference

Symposium Schedule:

Oct. 24 (Mon): Astronaut lectures for students & registration,

Oct. 25 (Tue): Opening ceremony, plenary session, welcome reception

Oct. 26 (Wed): Oral presentation, poster sessions, social event & banquet

Oct. 27 (Thu): Oral presentation, farewell party

Oct. 28 (Fri): Scientist lectures for students & technical tour (option, half day)

4 Plenary lectures of state of the art research from representatives of Korea, Japan, China and India

Plenary and keynote/invited lectures from prominent scientists

Normal oral presentation sessions and poster sessions of 13 microgravity application areas

Welcome reception, banquet with student awards and social event such as traditional performance of Jeju Island

AMS Committee Meeting for selection of next AMS 2024 Hosting Country

Lectures from scientists and astronauts for middle and high school students (TBD)

ZOOM real time broadcasting of All Plenary, Keynote/Invite Lectures and Normal Sessions

Time	Oct 24 (Mon)	Oct 25 (Tue)	Oct 26 (Wed)	Oct 27 (Thu)	Oct 28 (Fri)	
09:00 ~ 12:00	Astronaut Lecture for Middle/High School Student	4 Plenary Lectures of State of Art Researches from Korea, Japan, China and India	Plenary Lecture of 2 Scientists	Plenary Lecture of 2 Scientists	Scientist Lecture for Middle/High School Student	
			Keynote/Invited	Keynote/Invited		
			Session	Session		
Lunch						
14:00 ~ 18:00	Registration	Keynote/Invited	Keynote/Invited	Keynote/Invited	Cultural/Natural Experience	
		Session	Session			Session
			Session	Session		Keynote/Invited
			AMS Committee Meeting	Poster Session		
18:00 ~ 20:00		Welcome Reception	Individual Activities	Banquet & Award Ceremony and Traditional Performance of Jeju		

(1st Day Plenary Lecturer):

- Korea: “Recent Progresses in Microgravity Researches in Korea and KARI’s Vision”, Gi-Hyuk CHOI (KARI)
- China: “Microgravity Science and Application Research in China Approaching the CSS Era”, President Prof. Jian Fu ZHAO, National Society of Microgravity Science & Application (NsMSA/CSSR)
- Japan: (Title TBD) , YOSHIZAKI Izumi, Ms., Ph.D., Japan Aerospace Exploration Agency (JAXA), Human Spaceflight Technology Directorate, Japanese Experiment Module Utilization Center, Manager for Utilization Planning & International Relations (첫날 Plenary)
- India: (Title TBD), Mr E S Padma KUMAR, Deputy Director at Vikram Sarabhai Space Center of ISRO

(2nd & 3rd Day Plenary Lecturer):

- ***Prof. Suk-Ho CHUNG (KMS, Combustion Science and Chemical Physics)***
- ***Prof. Y.C. LIU (Tsinghua Univ., Combustion Science and Chemical Physics)***
- ***Prof. Hans FECHT (Ulm Univ., Material Science)***
- ***Prof. Douglass MATSON (Tufts Univ. Thermophysical Properties)***
- ***Dr. Takehico ISHIKAWA (JAXA, Levitation)***
- ***Prof. Tetsu MIENO (Shizuoka Univ., Fundamental Physics)***
- ***Prof. Huiqiong ZHENG (CAS Centre for Excellence, Life Science & Biotechnology)***
- ***TBD CEO (Space & Microgravity Industries)***
- ***TBD Astronaut (Space Medicine & Astronaut)***

Language & On-Line Presentation Protocol:

- English
- ***All On-Line Oral & Poster Presenters should send their presentation materials with MP4 file format before 2 weeks of their presentation day.***

Registration & Payment:

All necessary processes including registration and payment will be made via the AMS2022 Homepage (<http://www.ams2022.kr>).

On-Line presentation and participation will be possible for overseas scientists/students with half of normal registration fee.

All Off-Line and On-Line Attendees could pay his registration fees using Credit Cards through AMS 2022 Homepage.

	Early Registration/On-Line	Late & On Site/On-Line
General	650\$/325\$	750\$/375\$
Student	350\$/175\$	400\$/200\$
Accompanied Person	350\$	400\$

Contact Point for Submission of Abstract:

Dr. Joo-Hee Lee (AMS 2022 Co-Chair, Organizing Committee, KARI): jhl@kari.re.kr

Dr. Geun Woo LEE (AMS2022, Scientific Committee, KRISS): geunwlee@gmail.com

VISA and COVID-19 Prevention

Only direct flight to Jeju is exempted VISA from China and India, but VISA is required for transit from Incheon/Gimpo airport to Jeju airport.

KMS will send invitation letters for issuing Business VISA for overseas participants.

For entry it is required a RAT (Rapid Antigen Test) within 24 hours before flight or a PCR test 48 hours before flight. The RAT must be conducted by a professional expert not by yourself.

After arrival in Korea, it is required to test PCR immediately and stay hotel for one day until confirmation of negative result (from Jul. 25). It is recommended a RAT after 6~7 day of entering.

VISA and COVID-19 prevention regulation are changed positive direction continuously, so it is necessary to contact KMS or watch AMS 2022 homepage well before depart.

Transportation:

There are many flights from China, Japan and India to the Incheon/Gimpo Airport near Seoul and you can be conveniently and frequently connected to Jeju Airport.

The Jeju Airport is very close (2.6Km) from Ramada Plaza Hotel and easily accessible by taxi or a shuttle bus.

Hotel Map

Hotel Information ホテルインフォメーション

Opening day	July 1, 2003
Address	66, Tapdong-ro, Jeju-si, Jeju-do, Korea
Telephone	+82-064- 729-8100
Website	www.ramadajeju.co.kr
Structure	1 underground storey, 9 ground floors
Number of rooms	400 Guest rooms
Facility	Convention center, Buffet restaurant, Lobby lounge (Coffee shop), Restaurant (Korean, Japanese, Chinese), Bakery, Bar & Karaoke, Business center, Casino, Sports center, Spa & Therapy center, Rent a car, Souvenir shop, Central garden.

Directions アクセス

Car 車	<p>From the airport ▶ Yongmun Roundabout ▶ Hancheon Bridge ▶ Seomun Market ▶ Turn left from Seomun Intersection ▶ Go straight towards Tapdong-ro (approximately 3.8km)</p> <p>From the port ▶ Turn left from Imhang-ro ▶ Go right towards Duam/Tap-dong (approximately 2.2km)</p> <p>空港出発 ▶ 龍門ロータリー方面 ▶ 漢川橋 ▶ 西門市場 ▶ 西門十字路で左折 ▶ 塔洞路方面に直進(約3.8km)</p> <p>濟州港出発 ▶ 臨港路で左折 ▶ 龍頭岩/塔洞方面に右側方向(約2.2km)</p>
Taxi タクシー	<p>About 3.8km (10 min.) from Jeju International Airport.</p> <p>About 2.2km (5 min.) from Jeju Port.</p> <p>濟州空港からラマダプラザ濟州ホテルまで約3.8km、約10分所要</p> <p>濟州港からラマダプラザ濟州ホテルまで約2.2km、約5分所要</p>

Shopping & Tourist facilities in the surrounding area 周辺のショッピング及び観光施設



Dongmun Market Place, Dodubong Peak, Jeju International Airport, Samseonghyeol, E-mart, Byeoldobong Peak, Sarabong Peak, Jeju Folklore and Natural History Museum, Jeju Special Self-Governing Province, Yongduam Rock
東門在来市場、道頭峰、濟州港国際旅客ターミナル、三姓穴、Eマート、別刀峰、沙羅峰、民俗自然史博物館、龍頭岩

