Korean Women in Mathematical Sciences (KWMS)

Soon-Yi Kang (Kangwon National University)

Women in Mathematics, RIMS

September 7-9,2022

2022 KWMS The 17th International Conference

June 23. Thu. - 24. Fri. 2022 KIAS 1503

www.kwms.or.kr

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KWMS 한국여성수리과학회

Korean Women in Mathematical Sciences

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# Objectives of Establishment

Korean Women in Mathematical Sciences was founded to contribute to the development and dissemination of mathematical sciences by fostering the academic growth and active exchange of Korean mathematicians and by expanding the base of female mathematicians.

#### KWMS

| Support                                                | Promote                                                                    | Protect                                                                      | Collect                                     | Enhance                                   |
|--------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|
| equal<br>opportunities<br>for female<br>mathematicians | Women's<br>participation in<br>research<br>activities and<br>collaboration | the rights of<br>female<br>mathematicians<br>and promote<br>their well-being | math-related<br>data and<br>publish reports | public<br>understanding<br>of mathematics |

1st International Workshop for Korean Women in Mathematics

> June 21-23, 2004 KIAS International Conference Hall, Seoul, Korea

#### Invited Speakers

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| arie Choda     | Osaka Kyoiku University, JAPAN                  |  |
|----------------|-------------------------------------------------|--|
| oung-Eun Choi  | University of Warwick, UK                       |  |
| ne M. Hawkins  | University of North Carolina at Chapel Hill, US |  |
| unok Jung      | KonKuk University, KOREA                        |  |
| ing Ha Kang    | University of Kentucky, USA                     |  |
| oonjin Lee     | Smith College, USA                              |  |
| nne H. Walling | University of Colorado, USA                     |  |
| e Ja Yee       | Pennsylvania State University, USA              |  |

#### Organízíng Commíttee

| Soojin Cho        | Aj ou University                                      |  |
|-------------------|-------------------------------------------------------|--|
| YoungJu Choie     | Pohang University of Science and Technology (POSTECH) |  |
| Sun Young Jang    | ng Ulsan University                                   |  |
| Soon-Yi Kang      | Korea Institute for Advanced Study (KIAS)             |  |
| Wansoon Kim       | Hoseo University                                      |  |
| Kyewon Koh Park   | Ajou University                                       |  |
| Heisook Lee       | Ewha Womans University                                |  |
| Insuk Wee (Chair) | Korea University                                      |  |
|                   |                                                       |  |

Korea Institute for Advanced Study (www.kias.re.kr) Korean Women in Mathematical Sciences (www.kwms.or.kr)

For more information, please visit the workshop homepage (http://www.kwms.or.kr/www/popup/contents\_0002.html)

# **KWMS** Activities



#### International Conference

- To form a global network of female mathematicians and to visualize the mathematical competence of them



#### Next Generation Career Leaders Forum

- To foster next generation of female mathematicians and to train them in leadership



#### **Student Reporters**

- To offer female students with early exposure to mathematics community activities



#### **Travel Grant**

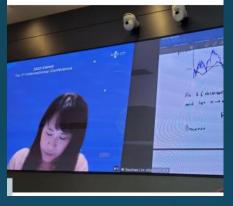
- To provide opportunities for female mathematicians to lay the foundation for establishing academic exchange networks

## KWMS International Conference Plenary Lectures



**Sanoli Gun** (Institute of Mathematical Sciences)

The mysterious Ramanujan tau function



Seonhee Lim (Seoul National University/ UCSD)

Local limit theorem in negative curvature



**Dongmei Xiao** (Shanghai J<u>iao Tong University)</u>

Limit cycles bifurcating from a period annulus of planar Hamiltonian systems



Sylvie Corteel (UC Berkeley/CNRS)

Cylindric partitions and Rogers Raman ujan identities

### **Public Lectures**

- To ensure the continued advancement of female mathematicians

### **Trilemma of Blockchain : how to scale up securely as a distributed ledger?** by Jiyoon Kim (NEWZ Chief Operating Officer)

Since 2017, blockchain has become popular because of cryptocurrencies including Bitcoin, the most valuable crypto asset in the world. Also, some concepts related to blockchain such as NFT, DeFi got a spotlight. However there is still a trilemma of blockchain unsolved from the beginning. How can we speed up the distributed ledger in a more secure manner? Is it inevitable to become a centralized network in order to scale up? Let's talk about some efforts in these days to solve this problem.



### **Role of scientists in an era of fake news and democratic crises** by Yoo-Hyang Kim (National Assembly Research Service)



Digital technology has achieved diversification of participation and democratization of information. At the same time, it can actually put democracy at risk. The post-truth era emerged in the historical and political background of political polarization and the re-emergence of populism. The era filled the ideological gap that emerged as the world transitioned from the 20th century into the 21st century after the end of the Cold War. The post-truth era demands distrust of public institutions and media, and even demands a political statement on science and technology. This presentation raises questions about the role of Scientists in an era of technological advances, fake news, and democratic crises.

### **Panel Discussion**

- Science policy for sustainable growth of scientists : female mathematicians' perspective

Experiences of and necessary support policies for female mathematicians of each generation in the process of entering, advancing, growing, and re-entering the career



# Solidarity and Support

### **Government-led** action

- Law to support and cultivate female human resources in science and technology (2002)

- Revision of the Education Public Officials Act (2020) : efforts should be made to ensure that the proportion of the specific gender among professors at national universities does not exceed three-quarters.

### Support from friends

- Korea Institute for Advanced Study (KIAS)

- Korean Mathematical Society (KMS)
- Non-female mathematicians and scientists

### Solidarity

- Korea Federation of Women's Science and Technology Associations (KOFWST)
- Association of Women Professors at National and Public Universities
- SNU Diversity Council
- AOWM, AWM, EWM,....

### Courage