

# THE KOREAN ASTRONOMICAL SOCIETY

한국천문학회

## Women-in-Astronomy Division of Korean Astronomical Society

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# Korean Astronomical Society (KAS)

- Founded in 1965
- Joined the IAU in 1973
- In 2022
  - ~600 full members & ~600 student members
  - ~20 % of female members in total

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# Women-in-Astronomy (WiA) Division

## IAU WiA

- Established in 2003 (XXV IAU)
- Working Group Chairs
  - Mamta Pommier (Chair)
  - Priya Hasan (Co-chair)
- Advisor : Dara Norman
- 10-14 managers in 2003
- 197 members worldwide in 2022

## KAS WiA

- Established in 2016
- Division Chairs
  - 1<sup>st</sup> term (2016-2017) : Hyesung Kang
  - 2<sup>nd</sup> term (2018-2020) : Hyerim Noh
  - 3<sup>rd</sup> term (2021-2022) : Young-sil Kwak
- Advisor : Sang Gak Lee
- 66 members in 2016
- 109 members in 2021 with 24% male

# Our Aim



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Facilitate interactions among women astronomers

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Establish strategies and actions that can help women to attain true equality as research astronomers

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# EAMA 10 Workshop

- 10<sup>th</sup> East Asian Meeting on Astronomy (EAMA 10)
- A special session on “The Role of Female Astronomers Leading Astronomy in the 21<sup>st</sup> Century”
- Aim : develop the international network among female astronomers
- Held by WiA and Korean Society of Women in Science and Technology (KWSE)



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# EAMA 10 Talks

1. Proportion of female graduate student in astronomy is about 35~40% worldwide
2. Female researchers take up about 15~17% of the permanent positions in astronomy field
3. Only 4~7% of administrative positions are female

## Invited speakers:



**Ewine van Dishoeck**  
Leiden University, Netherlands  
President Elect, International Astronomical Union



**Yuko Motizuki**  
Astro-Glaciology Research Unit, RIKEN,  
Saitama University, Japan  
Vice-President, Astronomical Society of Japan



**You-Ha Chu**  
President, Astronomical Society of the Republic of China  
Director, Institute of Astronomy and Astrophysics, Academia Sinica



**Yiping Wang**  
National Astronomical Observatories, C/



**Hyesung Kang**  
Pusan National University, Rep. of Korea  
Chair, Women-in-Astronomy Division, The Korean Astronomical Society

Prof. Ewine van Dishoeck and major female astronomers of East Asia were invited

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# Significance & Expectations

- The first official workshop to discuss the role of women scientists in East Asian countries
- More than 50% participants were male
- It provided an opportunity to think about **gender equality** in Korean and East Asian astronomical societies
- **International human network** created in this event is expected to help Korean female astronomers to interact with East Asian astronomy and IAU more actively

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# Immediate Action Items

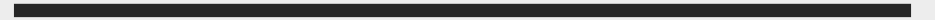
- Increase conference participation rate of female astronomers
- Expand opportunity for female graduate students and young astronomers to interact with senior researchers / professors
- Increase the number of female astronomers in board members
- Secure female proportion in chairs and invited speakers



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# Concrete Practices

1. Women-in-Astronomy Lunch
2. Child Care Service
3. WISSET-KAS Young Researcher Award
4. Update in Ethics Committee
5. Increase female members in leadership positions



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# 1. Women-in-Astronomy (WiA) Lunch

- Initiated in the Spring Korean Astronomical Society (KAS) meeting (April 2017)
- Became a regular event
- Combined with small workshops or panel discussions
  - 2017 Workshop
    - Prof. Sang Gak Lee, "My Path Looking Back : Finding the Characteristics of the Star's Spectrum"
    - Dr. Kang Hwan Lee "Vera Rubin; Open the door for astronomy and women"
  - 2019 Panel Discussion
    - Current state of Korean female astronomers and solution to increase their roles
  - 2022 Workshop
    - Preparation of IAU WiA Working Group Meeting in IAUGA2022

# 1. Women-in-Astronomy Lunch

## 2019 Panel Discussion



# 2022 Workshop

## The preview of Women in astronomy of IAU GA

### 마리보는 WOMEN IN ASTRONOMY OF IAU GA

MAR. 14. THU, 2022  
12:00~13:00

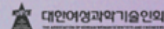
점심 도시락 제공 (행사 후 개별 식사)

BUSAN BEXCO  
(천문학회 진행장소 내)



| 시간          | 내용  |
|-------------|---|
| 12:00~12:05 | 인사말 _ 광영실위원장  |
| 12:05~12:15 | IAU Women in Astronomy Working Group 소개 _ 송인옥회원                                 |
| 12:15~12:35 | Women in Astronomy division of KAS _ 이정은회원<br>국내 젊은 여성천문학자들의 경력 지속의 어려움 _ 신수현회원 |
| 12:35~12:50 | 토의 _ 광영실위원장   |
| 12:50~13:00 | IAU GA 2022 준비 현황 _ 강혜성회원   |

주최 (사)한국천문학회 여성분과  
주관 (사)한국천문학회, (사)대한여성과학기술인회, IAUGA2022조직위원회



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# A grant from The association of Korean Woman Scientist and Engineering (KWSE)

- WiA lunches in the KAS meeting and IAUGA2022
- Travel money of several female students to IAUGA2022
- Posters and banners for the WiA WG session in IAUGA2022

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## 2. Child Care Service

- Help active participation of members with children
- First implemented in 2019 Spring meeting
  - Sponsored by Korean Astronomical Society (KAS) and Korea Astronomy and Space Science Institute (KASI)
- KAS took the responsibility of Child Care Service since 2019 Fall meeting
- The Korean Space Science Society (KSSSS) is benchmarking the child care service of KAS

## 2. Child Care Service

- Activities
- BEXCO Tour
- Snack Time

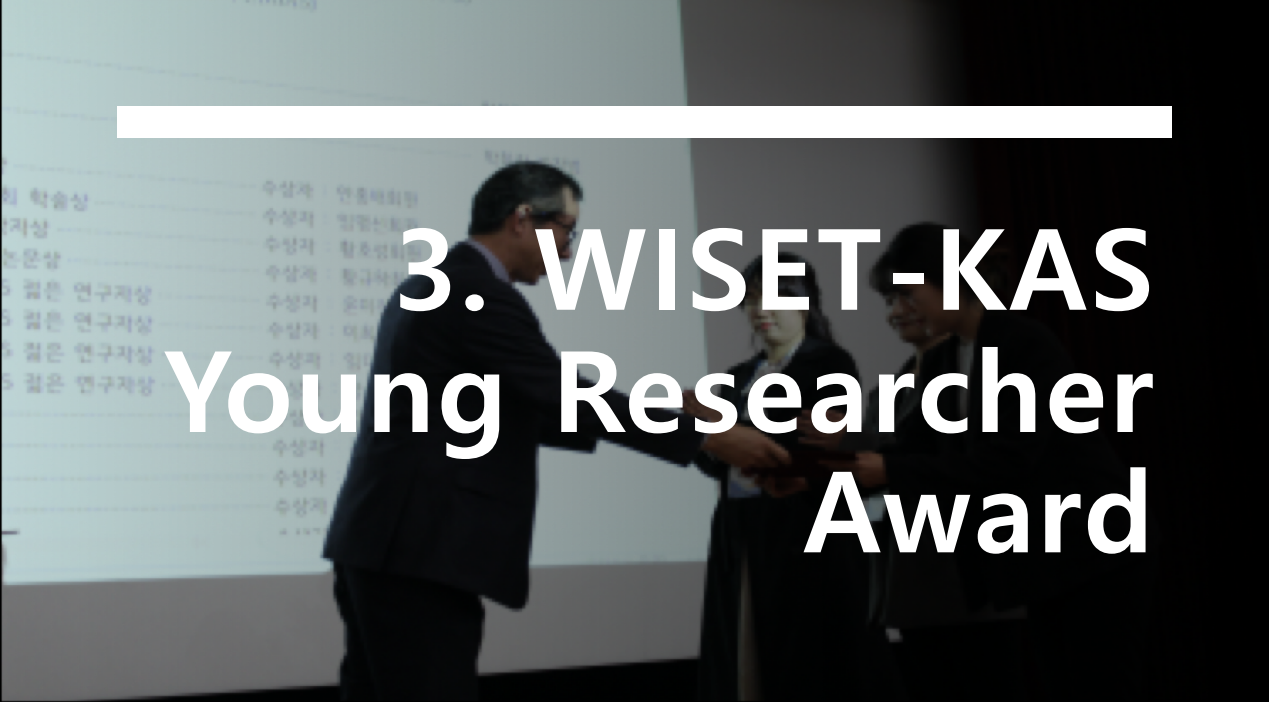


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## 3. WISET-KAS Young Researcher Award

- WiA of KAS was selected by Korean Women in Science, Engineering, and Technology (WISET) to run a program called “Discovering new talented female researchers” along with several education programs in 2019
- Awarded “WISET-KAS Young Researcher Award” through fair evaluation





Young female astronomers with excellent academic performance

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## 4. Ethics Committee

- WiA took part in Ethics Committee
- Contributed to the establishment of ethical regulation including sexual harassment and morals in the astronomy field
- WiA chair must be included in Ethics Committee
  - Currently the chair and a member of WiA Division are working for the committee
- Support for student discussion at the ethical regulation session

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## 5. Females in Leadership position

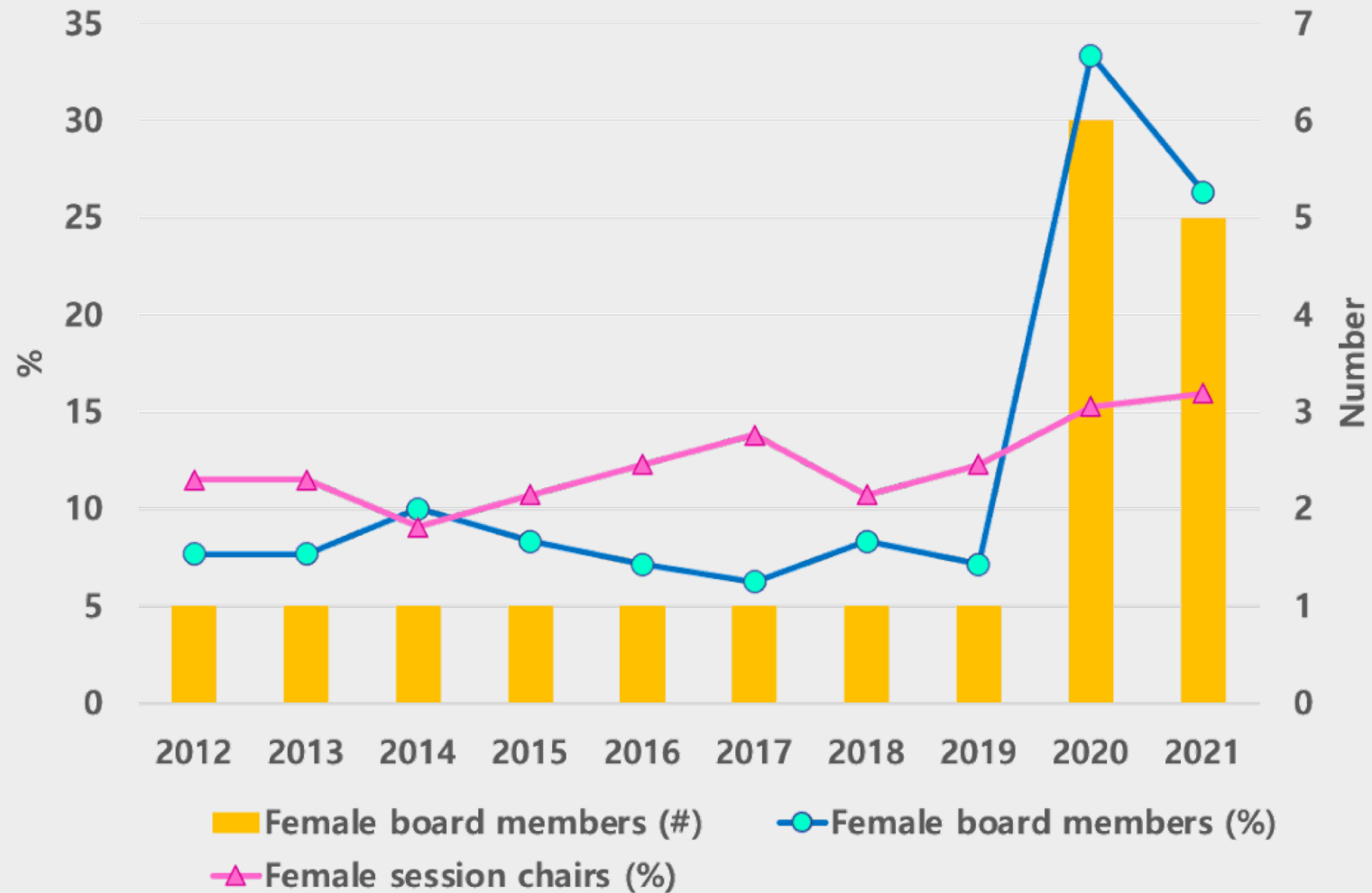
- Effort to increase female leadership within astronomical society
- Raise awareness that the number of female in leadership positions such as board members, division chairs, session chairs, and invited speakers is scarce
- Strongly recommend female members

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# Changes

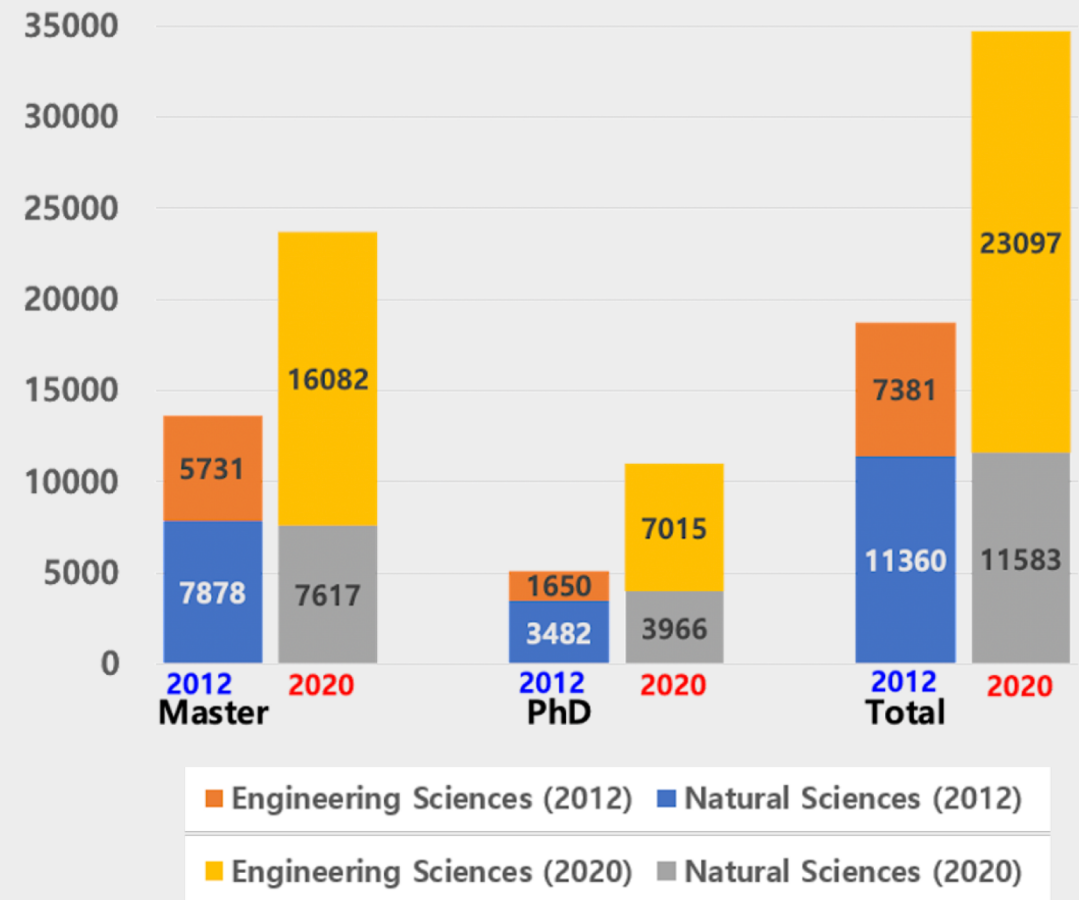
- Quality than Quantity
  - Publicize hardships of female researchers
  - Acknowledge that male should tackle gender issues together
  - Female members are as important as male members
  - Change in quantity : females in leadership positions (chair & board member) increased

# Female board members and session chairs in KAS



# Statistical Changes

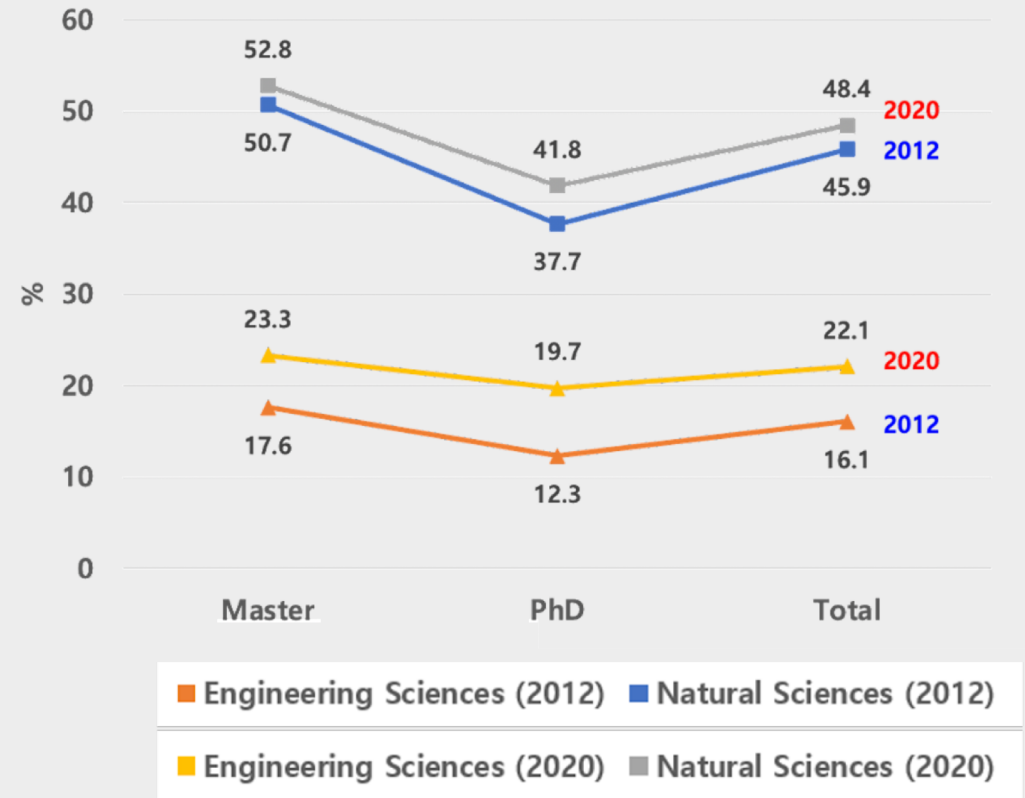
- Korean Female Students in STEM
  - Despite the decrease of population, overall number of STEM field increased.
  - Engineering field grew rapidly in number compared to natural science



# Statistical Changes

- Korean Female Students in STEM
  - Overall, ~25% students are female in STEM
  - The proportion of female students in natural science is about 50%
  - Female ration increased by 2.5% and 6% in natural science and engineering, respectively

➤ Then, what happens after doctorate?



# Statistical Changes

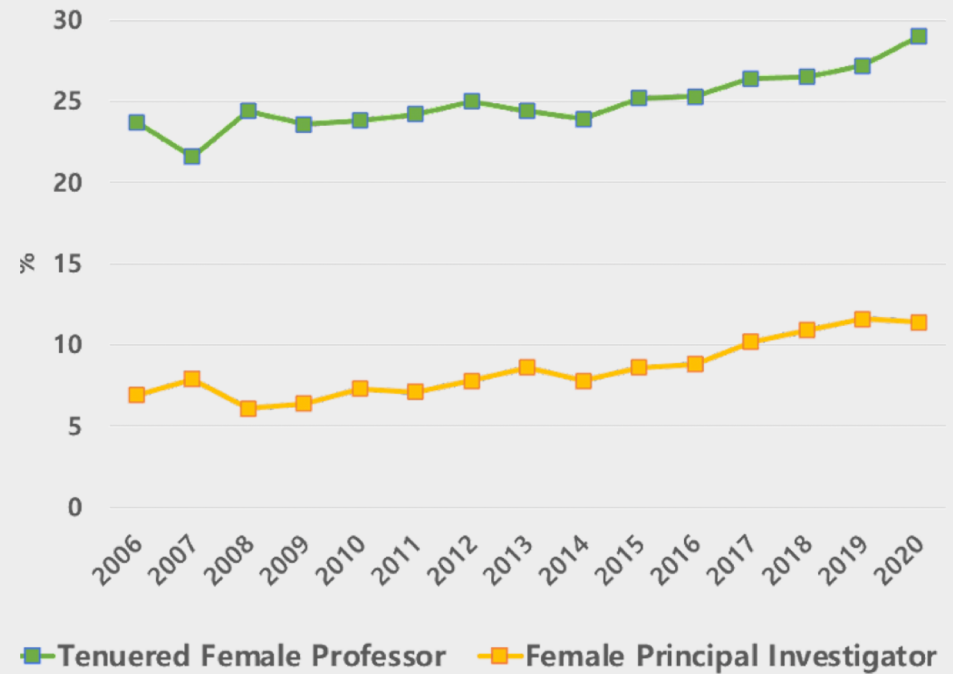
- Korean Female Researchers with Permanent Positions
  - Increased from 10% to 18% in past 13 years
  - ➔ The ratio of female researchers with permanent positions is too low
- Proportion of females in administrative positions
  - 6~7% until 2014 ➔ 12% in 2020





# Statistical Changes

- Proportion of female professors with tenure
  - 24% in 2014 → 29% in 2020
- Proportion of female PI
  - 8% in 2014 → 11.5% in 2020



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# Future Plans

1. Joining Korea Federation Women's Science & Technology Associations (KOFWST) as a full member with over 100 members
2. Encourage male members to participate activities organized by WiA and solve problems together
3. Increase influence of female astronomers by nominating women for session chairs, division chairs, and board members
4. Collect statistical data to make more quantitative measures and set the strategic plans for gender equality