

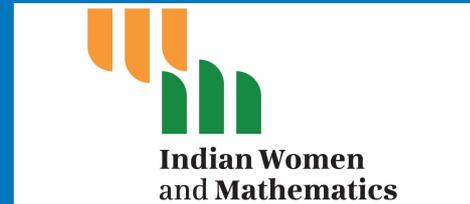
# Indian Women and Mathematics;

## Research in Groups

By

Sanoli Gun (Chair, IWM)

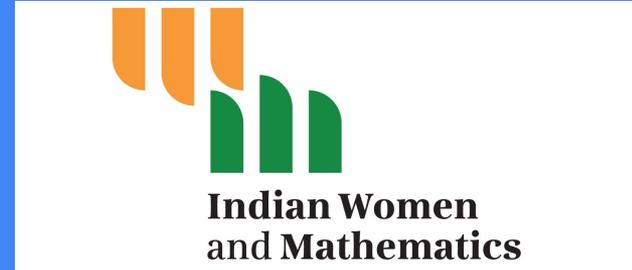
The Institute of Mathematical Sciences, Chennai



---

# Indian Women and Mathematics

---



## **We are**

A group of Indian mathematicians that has been in existence since 2009.

---

## **Our Mission**

Encourage more women to pursue higher education in mathematics  
Organize events and networking opportunities that will enable them  
to take up careers in mathematics.

---

# Current Executive Committee Members

- Sanoli Gun (Institute of Mathematical Sciences) (Chair)
- Nikita Agarwal (University of Delhi)
- Gurmeet Bakshi (Punjab University)
- Shreemayee Bora (IIT Guwahati)
- Anisa Chorwadwala (IISER Pune)
- Paramita Das (Indian Statistical Institute Kolkata)
- Sheetal Dharmatti (IISER Thiruvananthapuram)
- Amber Habib (Shiv Nadar University)
- Archana Morye (University of Hyderabad)
- Anita Naolekar (Indian Statistical Institute Bangalore)
- Anand Sawant (TIFR)
- Suparna Sen (University of Calcutta)
- Pooja Singla (IIT Kanpur)
- Sachi Srivastava (University of Delhi)

# How IWM Began

Just before the ICM in Hyderabad, India in 2010, the first International Conference of Women Mathematicians (ICWM) was planned.

As preparation, an international conference *Advances in Mathematics : Focus on Women in Mathematics*, was conducted at JNU, Delhi, India in October 2009. Majority of participants were women as were  $\frac{2}{3}$  of the speakers. Young scholars were also invited to present their research. This set the template for later activities.

ICWM 2010 was aimed principally at young women mathematicians, particularly from Asia and from developing countries. Among the speakers was Maryam Mirzakhani, who went onto win the Fields Medal four years later.

## ICWM 2010 – *setting the scene for IWM*

During 17–18 August 2010, the ICWM took place in Hyderabad, India. It was organized with support from the European Women in Mathematics, the European Mathematical Society and the Association for Women in Mathematics

A panel titled “Women Mathematicians Around the World” took place with Beatrice Pelloni (UK) as Chair. The other panelists were Basabi Chakraborty (Japan), Rashida Adeeb Khanum (Pakistan), Marie Françoise Ouedraogo (Burkina Faso), Kyewon Koh Park (Korea), Sylvie Paycha (EWM), Vera Spinadel (Argentina), Geetha Venkataraman (India), and Carol Wood (AWM).

Every subsequent ICM has continued with this tradition first established in 2010 in India – the 3<sup>rd</sup> Edition of The World Meeting for Women in Mathematics (WM)<sup>2</sup> will take place the day before the ICM 2026.

# IWM Expansion

- The first event held under the IWM banner was a 3-day symposium at the Institute of Mathematical Sciences (IMSc), Chennai, India, in January 2012.
- Following this and other events, the **National Board for Higher Mathematics (NBHM), Department of Atomic Energy, India**, sanctioned a large project-grant to provide an umbrella for activities related to training and outreach for women mathematicians.
- Support from the **Committee for Women in Mathematics (International Mathematical Union)** has allowed our programs to have an international reach.

# Range of Activities of IWM

**Annual Conference:** Invited talks by notable women mathematicians from India and abroad, and contributed talks by early-career researchers from across India. Networking opportunities for the many women delegates who are in the early career stages.

**Regional Workshop:** Aimed at women of the region engaged in teaching or research, or working towards a post-graduate degree. Expose the audience to fresh trends in research as well as opportunities for careers in research.

**Visitor Programme:** Established women mathematicians from India and abroad deliver lectures in metro and non-metro towns in different parts of India and interact with women students of mathematics to promote and popularise mathematics research.

**May 12 Events**

# Range of Activities of IWM (Contd.)

**Summer School (Winter School before 2024):** One week to 10 days school for 2nd year undergrad women students – started in 2019.

**Online Minicourses:** Established mathematicians deliver a set of 4 lectures over a weekend. These were started during the pandemic period and are open to interested students and faculty all over the world. They are also available on the IWM YouTube channel.

**Research in Groups Meeting (introduced in 2025):** The aim is to create a strong group of young female researchers across the country. Each group has at least one senior and one junior mentor, with about five student participants. The project engagement is for a minimum period of one year. There are two in-person one week long meetings per year.

# Research in Groups

Group I : Eventual Positivity

Group Leader : Sachi Srivastava (University of Delhi)

Junior Leader : Sahiba Arora (Leibniz University Hannover, Germany )



Sachi Srivastava



Sahiba Arora

Group Members : Parmita Das, Rachana Shokhand, Rakshana T,  
Ida Tiwari, Geeta Chowdhary

# Research in Groups

Group II : SCV and Holomorphic Dynamics

Group Leader : Sayani Bera (IASc, Kolkata)

Junior Leader : Annapurna Banik (TIFR CAM, Bangalore)



Sayani Bera



Annapurna Banik

Group Members : Mridula Mundalia, Sathi T M, Sonali Saha, Ida Tiwari

# Research in Groups

Group III : Classical and Finite Multiple Zeta Values

Group Leaders : Sanoli Gun (IMSc, Chennai)  
& Masanobu Kaneko (Kyushu University, Japan)

Junior Leaders : Rashi Lunia (MPIM, Bonn), Dhananjaya Sahu (CMI),  
Gaurav Kumar (IMSc, Chennai)  
& Deep Thakur (IMSc, Chennai)

# Research in Groups (Classical and Finite Multiple Zeta Values)



Masanobu Kaneko



Sanoli Gun

Group Leaders



Rashi Lunia



Dhananjaya  
Sahu



Gaurav Kumar



Deep Thakur

Junior Group  
Leaders

# Members of the Research in Groups



Snigdha Bagui



Raveena Ganesh



Arighna Pan



Amrinder Kaur

# IWM Activities Map (till January 2026)



*Visitor Programme*

*Regional Workshop*

*Annual Conference*

*Winter/Summer School*

*Research in Groups Meeting*

# Achievements

Geographically, covered a wide swath across India.

Numerous programs in colleges in small towns where there is little exposure to research in mathematics.

Reached several hundred participants annually.

Initiated networking with the women mathematicians of neighbouring countries such as Nepal and Bangladesh.

For more on IWM activities, please visit: <https://iwm.org.in/>

# What Next?

Organize programs in parts of India, where they have been relatively less number of activities so far.

Engage with policy makers for steps, big and small, that would reduce obstructions faced by women in their career progression as well as their daily work.

Develop networking with international organisations such as CWM, AOWM and so on.

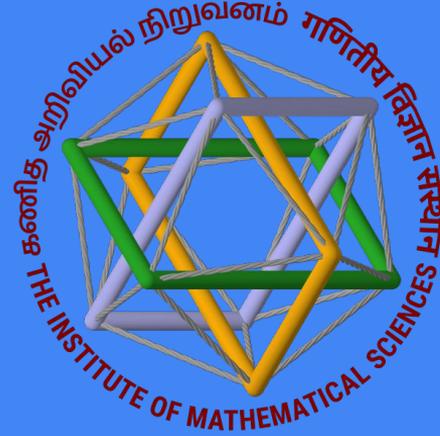
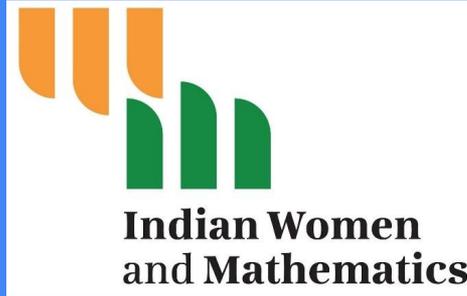
# ありがとう



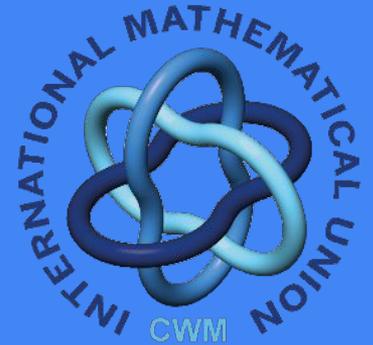
सत्यमेव जयते

Government of India

National Board for Higher Mathematics



IMSc,  
Chennai



Committee for  
Women in Mathematics