

# Summary

## Main Programme

Eugene Semenko (NARIT, Thailand)

**3<sup>RD</sup> BINA WORKSHOP**

**Scientific Potential of the Indo Belgian Cooperation**

**Graphic Era Hill University, Bhimtal**

**22-24 MARCH 2023**

**Azadi Ka Amrit Mahotsav**

<https://www.aries.res.in/BINA-Workshop>

**SOC**

- S. GANESH (PRL, INDIA)
- T. BAUG (SNBNCBS, INDIA)
- D. KARINKUZHI (UOC, INDIA)
- J. C. PANDEY (ARIES, INDIA)
- S. JOSHI (ARIES, INDIA; CO-CHAIR)
- T. VAN DOORSELERAERE (KULEUVEN, BELGIUM)
- P. DE CAT (ROB, BELGIUM; CO-CHAIR)
- M. BECKER (ULIÈGE, BELGIUM)
- E. JEHIN (ULIÈGE, BELGIUM)
- L. MAHY (ROB, BELGIUM)
- S. ECK (JLB, BELGIUM)

**LOC**

- Santosh Joshi
- Brijesh Kumar
- Virendra Yadav
- S. Krishna Prasad
- Dipankar Banerjee
- Praveen Solanki
- Mohit K. Joshi
- Vaibhav Pant
- Kuntal Misra

# Statistics of BINA

	<b>BINA 1</b> 15-18 Nov 2016	<b>BINA 2</b> 9-12 Oct 2018	<b>BINA 3</b> 22-24 Mar 2023
<b># Participants</b>	107	65	149
<b>Oral talks (instrumentation)</b>	9 (out of 36)	5 (out of 45)	8 (out of 37)
<b>Oral talks (science)</b>	24	39	28
<b>Posters</b>	42	8	80

# Highlights

## Observational Techniques and Instrumentation

- ILMT (Jean Surdej and his team): The first scientifically useful telescope with a liquid mirror
- High-resolution spectrograph at the 2.5-m PRL telescope (Abhijit Chakraborty) and DOT HRS (Jayshreekar Pant)
- New devices for the DOT: TA-MOONS (Joe Philip Ninan), ADFOSC-pol (Amitesh Omar)
- 1-m class telescopes: HERMES (Karan Singh Dsilva), SALTO (Jyotirmay Paul)
- Time allocation policy and TAC (Nissim Kanekar)

# Highlights

## Science

- **Solar System: comets**

Aravind K. (Optical spectroscopy of bright comets)

Mathieu Vander Donckt (Carbon-chain depleted comets)

- **Stellar (and not only) occultations**

Anandmayee Tej (Planetary occultations)

Anna Pospieszalska (Asteroids with ILMT, poster S2-P18)

# Highlights

## Science

- **Binary and multiple stars**

Thiabault Merle (Review on multiplicity, catalogue SB)

Alexander Panchal (K2 eclipsing binary candidates)

- **Magnetic fields, magnetospheres, etc.**

Gregg Wade (review on the magnetism of the massive stars)

Arora Bhatti, Gurpreet Singh, Anindya Saha, Gourav Banerjee, Davendra K. Ojha, and many others

# Highlights

## Science

- **Polarization**

Namita Uppal (Galactic tomography)

- **Abundance analysis and Galactic archaeology**

Aruna Goswami, Deepak, Palavi Saraf, Gajendra Pandey

- **Here could've been asteroseismology**

Music of the stars

# Highlights

## Science

- **Multi-wavelength observations (Star formation and not only)**

Gourav Banerjee, Arora Bhatti, Arpan Ghosh, Joytirmoy Dey, Lokesh Kumar Dewangan

- **Compact objects**

Suman Bhattacharya, Nikita Rawat, Sachindra Naik

- **Transients and Extragalactic astrophysics**

Dimple Panchal (ML!), Rahul Gupta (classification of GRBs), Krishan Hand (intranight variability of blazars), Priyanka Jalan (ML, Chat GPT!), Vivek Kumar Jha

# General Conclusion

- Education (3×YES), Public Outreach (YES), Observations (YES), Instrumentation (YES), Theory (?)
- Main Sequence stars are underrepresented
- Modelling is way to go
- New methods of the data analysis (ML and others)