

### INTERNATIONAL CONFERENCE

"Astronomical Heritage of the Middle East"



Armenia, Yerevan RA National Academy of Sciences

# **PROGRAM**

## Monday, November 13

09:00-09:30
Registration at the Presidium of the Armenian National Academy of Sciences
09:30-10:00
Opening and Welcome Addresses: Radik Martirosyan (President of NAS RA), Ashot Hovakimian (Deputy Minister of Foreign Affairs of RA), Piero Benvenuti (IAU General Secretary), Yuri Suvaryan (Academician-Secretary of Division of Armenology and Social Sciences) and Areg Mickaelian (Director of BAO and IAU SWCA ROAD)

### Session 1. *Introductory*

## **Chair: Radik Martirosyan**

| 10:00-10:30 | Areg Mickaelian (Armenia) – Armenian Archaeoastronomy and Astronomy in Culture      |
|-------------|---|
|             | (Invited)   |
| 10:30-11:00 | Piero Benvenuti (France) – IAU activities related to Archaeoastronomy and Astronomy |
|             | in Culture (Invited)  |

#### 11:00-11:30 Coffee break

## Session 2. Ancient Astronomy

#### Chair: Vito Francesco Polcaro

| 11:30-12:00 | Sadollah Nasiri-Gheydari (Iran) – Astronomical Heritage of Iran (Invited)           |
|-------------|---|
| 12:00-12:30 | Garik Israelian (Spain) – Starmus Festival: Musical Astronomical Heritage (Invited) |
| 12:30-13:00 | J. McKim Malville (USA) – Geographic and Societal Determinates of Ancient           |
|             | Astronomies (Invited)   |
| 13:00-13:10 | "Per aspera ad astra" Art Exhibition Opening Ceremony (Lazar Mirzoyan)              |

#### 13:10-14:00 Lunch break

### 14:00-14:30 AstroPainting Master Class

#### **Chair: Piero Benvenuti**

| 14:30-15:00 | Xiaochun Sun (China) – Astronomical Silk Road (Invited)                |
|-------------|--|
| 15:00-15:15 | Ariel Cohen (Israel) – The Jewish Chronology and Astronomy (Invited)   |
| 15:15-15:30 | Ramesh Kapoor (India) – When Ibn Sina Saw Venus on the Disc of the Sun |

### 15:30-16:00 Coffee Break and Poster Session

| 16:00-16:30 | Moh'd Al-khasawneh Awni (Jordan) – Astronomical heritage of Jordan (Invited)       |
|-------------|--|
| 16:30-17:00 | Irakli Simonia (Georgia) – Ancient Astronomical Knowledge – the Unity of Diversity |
|             | (Invited)  |

### 18:00-20:00 Welcome Reception at Shirak Hotel

# **TUESDAY, November 14**

## Visit to Byurakan Astrophysical Observatory

| 09:30-10:30 | Yerevan to Byurakan Transfer    |
|-------------|---------------------------------|
| 10:30-11:30 | Visit to V. Ambartsumian Museum |
| 11:30-12:30 | Visit to 2.6m telescope         |
| 12:30-13:30 | Lunch break                     |

# Session 3. Astronomical Heritage for the Future

## **Chair: Areg Mickaelian**

| 13:30-14:00 | Piero Benvenuti (France) – Modern cosmology and the "creatio continua" concept by  |
|-------------|--|
|             | Thomas Aquinas (Invited)   |
| 14:00-14:30 | Habib Khosroshahi (Iran) - Iranian National Observatory; building heritage for the |
|             | future (Invited)   |
| 14:30-15:00 | Sinan Alis (Turkey) – Development of Astronomy in Turkey ( <i>Invited</i> )        |

| 15:00-15:30 | Coffee break   |
|-------------|--|
|             |  |
| 15:30-15:45 | Ericson D. Lopez (Ecuador) - Ecuadorian Quito Astronomical Observatory, an     |
|             | astronomical heritage  |
| 15:45-16:00 | Areg Mickaelian (Armenia) – Digitized First Byurakan Survey (DFBS) – as UNESCO |
|             | "Memory of the World" documentary heritage (Invited)                           |
| 16:00-16:15 | Tigran Magakian (Armenia) – Byurakan Plate Archive Heritage                    |

# Session 4. Astronomical Heritage for Science

### Chair: Xiaochun Sun

| 16:15-16:45 | Coryn Bailer-Jones (Germany) – Understanding uncertainty: lessons from astronomy ( <i>Invited</i> )        |
|-------------|--|
| 16:45-17:00 | Magd Elias Kahil (Egypt) – The Scientific Method: An Approach of Developing                                |
| 15 00 15 15 | Cosmology  |
| 17:00-17:15 | Tomoko Fujiwara (Japan) – Clarification of unknown phenomena using historical star catalogues and charts   |
| 17:15-17:45 | Massimo Capaccioli (Italy) – A pluralistic vein in the early Eighteen century in Europe ( <i>Invited</i> ) |
| 17:45-18:15 | Vito Francesco Polcaro (Italy) – The Astronomical Orientations of Sacred Buildings in                      |
|             | the Levant during the Bronze and Iron Ages (Invited)   |
| 18:15-18:45 | Ahmed Abdel Hady (Egypt) - Observatories and astronomers in Egypt during the period                        |
|             | 969-1850 AD ( <i>Invited</i> )   |
| 18:45-19:45 | Byurakan to Yerevan transfer   |

# WEDNESDAY, November 15

09:00-19:00 Guided visit to ancient Observatory Zorats Karer (Armenian Stonehenge)

# **THURSDAY**, November 16

## Session 5. Astronomical Heritage in Literature and Culture

## Chair: Sona Farmanyan

| 09:30-10:00 | Grigor Broutian (Armenia) – Some astronomical-cosmic realities in the Armenian epic |
|-------------|---|
|             | "Sasna Tzrer" (Invited)   |
| 10:00-10:15 | Amir-Mohammad Gamini (Iran) – Al-Shirazi and the Non-Ptolemaic Planetary Models     |
| 10:15-10:30 | Hanif Ghalandari (Iran) – The First Cosmological Works Islamic Period               |
| 10:30-11:00 | Gohar Vardumyan (Armenia) – Celestial Bodies in Ancient Armenian Mythology          |
|             | (Invited)   |

### 11:00-11:30 Coffee break and Poster session

| 11:30-12:00 | Hakob Simonyan (Armenia) – Sunrise as precondition for the orientation of grave-tombs in ancient Armenia ( <i>Invited</i> ) |
|-------------|---|
| 12:00-12:15 | Ferenc Szenkovits (Romania) – The First Astronomical Observatory in Cluj-Napoca   |
| 12:15-12:30 | Jayanta Acharya (Nepal) - The influence of Astronomy in Nepali culture  |
| 12:30-13:00 | Mohammad Bagheri (Iran) – Kushyar ibn Labban (Gilani) (Invited)   |
| 13:00-13:15 | Martin Solc (Czech Republic) – V. Stratonov (1869-1938) – an astronomer on the way  |
|             | from Middle East to Prague  |

### 13:15-14:15 Lunch break

# Session 6. Astronomical Heritage in "Language"

## Chair: Sadollah Nasiri-Gheydari

| Haik Harutyunian (Armenia) – Ancient Astronomical Knowledge in Armenian Myths   |
|---|
| and Names (Invited)   |
| Ararat Yeghikyan (Armenia) – Does "Iron" in Armenian really means a "Sky Drop"? |
| (Invited)   |
| Harutyun Khudanyan (Armenia) - Some common patterns on the ancient astrology of |
| Mesopotamia and the Armenian Highland   |
| Karen Tokhatyan (Armenia) - Ancient Astronomical Knowledge and Rock Art in      |
| Armenia (Invited)   |
| Sona Farmanyan (Armenia) – Revealing the answers of cosmic riddles in Armenian  |
| manuscripts   |
|   |

## 16:15-16:45 Coffee break and Poster session

## 19:00-22:00 Conference Dinner

# FRIDAY, November 17

# Session 7. Astronomical Heritage for Outreach and Tourism

| Chair: Areg Mickaelian |  |
|------------------------|--|
| 09:30-09:45            | Levon Aramyan (Armenia) – Immersive Visualization Technologies for Astronomy     |
|                        | Outreach   |
| 09:45-10:00            | Sona Farmanyan (Armenia) – Activities of Armenia at the Office of Astronomy      |
|                        | Outreach   |
| 10:00-10:15            | Gabriel Ohanyan (Armenia) – Byurakan Astrophysical Observatory as Tourism Center |
| 10:15-10:30            | Naira Nalbandyan (Armenia) – Development of Astro Tourism in Armenia             |
| 10:30-11:00            | Panel Discussion: Goals and Methodologies in Cultural Astronomy                  |
| 11 00 11 20            |  |
| 11:00-11:30            | Coffee break and Poster session  |
|                        |  |
| 11:30-13:00            | Press Conference and Interviews with scientists                                  |

## 13:00-14:00 Lunch break

# Session 9. Astronomical Heritage for Development

| Chair: Piero Benvenuti |   |
|------------------------|---|
| 14:00- 14:30           | Kevin Govender (South Africa) – Office of Astronomy for Development (Invited)         |
| 14:30-14:45            | Ishitsuka Jose Kaname (Peru) – Heritage for Astronomy Development in Peru trough      |
|                        | Two Generations; Up and Downs   |
| 14:45-15:00            | Ewelina Grandzka (Poland) – Under the Kyrgyz sky-from Astronomy to Development        |
| 15:00-15:15            | Areg Mickaelian (Armenia) - South West and Central Asia Regional Office of            |
|                        | Astronomy for Development   |
| 15:15-15:30            | Iraj Safaei (Iran) – History and Kinds of Astrolabe in the Middle East and its Use in |
|                        | Armenia for Development   |
|                        |   |

## 15:30-16:00 Coffee break and Poster session

## 16:00-17:00 Conference Summary and Closing Ceremony