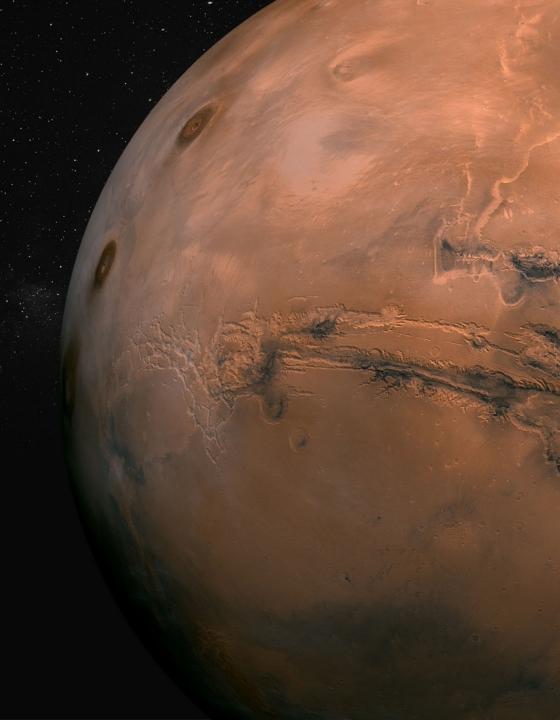
STÄRMUS

STARMUSVI 50 YEARS ON MARS

> YEREVAN, ARMENIA 5-10 SEPTEMBER, 2022





Starmus VI Armenia / Festival Program

www.starmus.com/Armenia





















31 August – 2 September Astrophotography school

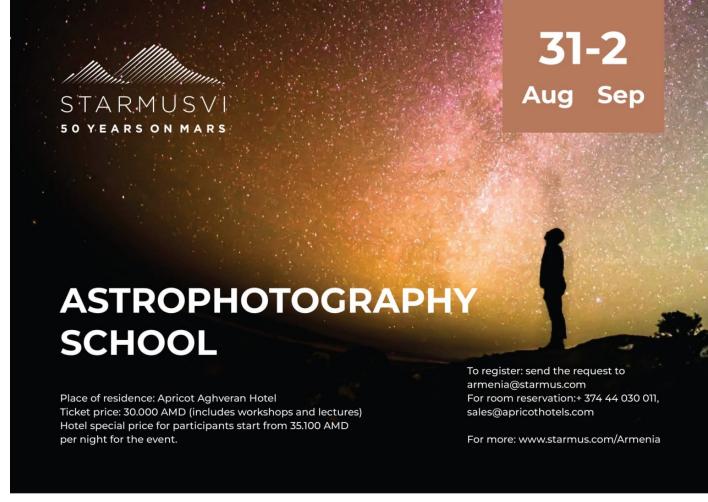
Lectures:

- Basics of DSLR Astrophotography
- Introduction to Planetary Imaging
- Art at Night: Location Scouting, Composition, Foreground
- Meet Explore Scientific's Telescopes
- Planetary Image Acquisition
- Going Deep: The Need for Shooting the Weird and Obscure
- And others

Tickets: 30 000 AMD

Location: Apricot Aghveran Resort

To register please send us request via email armenia@starmus.com



Speakers



David Eicher
Editor, writer, and popularizer



Michael E. Bakich
Contributing Editor,
Astronomy Magazine



Oshin Zakarian
Astroimager



Christopher Go Astroimager



Scott Roberts
President, Explore
Scientific



4 September Welcome Concert

Venue: Sport-Concert Complex, Concert Hall

Ticket price: 5 000 – 40 000 AMD https://www.starmus.com/tickets

*Welcome Concert is not included in the price of General Festival ticket.





5 September Sonic Universe and Stephen Hawking Medal Ceremony

Venue: Sport-Concert Complex, Ice Arena

General Festival Ticket: 20.000 AMD for the youth up to 23 y.o. 25.000 AMD for general attendees https://www.starmus.com/tickets

*Sonic Universe and Medal Ceremony is included in the price of General Festival ticket





6 - 9 September Discover the Cosmos & Change the World Conference

Venue: Sport-Concert Complex, Ice Arena General Festival Ticket:

20.000 AMD for the youth up to 23 y.o. I 25.000 AMD for general attendees

https://www.starmus.com/tickets

*Discover the Cosmos & Change the World Conference is included in the price of General Festival ticket

6 September (Tuesday)

15:00 - 16:30

Diane Ackerman (Poet, Essayist)

Donna Strickland (Physicist, Nobel Laureate) - How to cut glass with lasers

Brian Greene (Physicist and Science Communicator) - The End of Time **Leon Stok** (Engineer, IBM) – Recent Advances in Quantum Computing **16:30** - **17:30**

Break

17:30 - 19:00

Jean-Jacques Dordain (Aerospace engineer and former DG of ESA) The message from Earth to humans on planet Earth

From Applied Charmonties (Missabiele sist and Bischemist, Nabel

Emmanuelle Charpentier (Microbiologist and Biochemist, Nobel Laureate) - Gene Therapy

Maureen Raymo (Paleo climatologist) - Climate Change: Is it too late? **Kurt Wuthrich** (Chemist, Nobel Laureate) - mRNA and other biological macromolecules supporting the functioning of our bodies

7 September (Wednesday)

17:30 - 19:30

Louis Friedman (Astrophysicist) - 50 Years on Mars: from Mars 3 and Mariner 9 to Starship

Bethany Ehlmann (Planetary Scientist) - Science Discoveries at Mars: today and tomorrow

Scott Hubbard (Physicist) - Mars Exploration: The reconstruction **Michel Mayor** (Astrophysicist, Nobel Laureate) - Billions of planets in the Universe

Lisa Kaltenegger (Astrophysicist) - Alien Earths

David Grinspoon (Astrobiologist) - Climate catastrophes on Venus, Earth and Mars



6 - 9 September Discover the Cosmos & Change the World Conference

8 September (Thursday)

15:00 - 16:30

Jim Bagian (Astronaut and physician) - The Human in Space- Medical and Physiological Challenges

Tony Fadell (ipod inventor, iphone co-inventor and Nest founder) - Technology Synergies between Earth and Space

Wu Ji (Aerospace Engineer and former DG of NSSC) - Chinese Space Program

Kam Ghaffarian (Visionary Entrepreneur, founder of X-energy, Axiom Space) - Building the off-Earth economy

16:30 - 17:30

Break

17:00 - 19:00

Kip Thorne (Physicist, Nobel Laureate) - Black Holes and Time Wraps **Xavier Barcons** (Astrophysicist, General Director of ESO) - ELT - Building and operating the most powerful ground-based astronomical observatories

Mark Boslough (Planetary scientist) - Asteroids in action- Fire on the ground

Panel Discussion with **Charlie Bolden**, **Jean-Jacques Dordain** and **Wu Ji**

9 September (Friday)

15:00 - 16:30

Charlie Duke (Moonwalker, Apollo 16 Program) - Walking and driving on the Moon

George Nield (Astronaut and Engineer) - Space Tourism Today and Tomorrow **Paul Franklin** (Visual Effects Supervisor) - Visual effects: from Science to Arts **Tony Donne** (Programme Manager and CEO of EUROfusion) - Fusion: creating a star on earth

16:30 - 17:30

Break

17:30 - 19:00

Chris Hadfield (Astronaut, engineer, fighter pilot and author) - An Astronaut's guide to walking in Space

George Smoot (Physicist, Nobel Laureate) - The Origin of the Universe **Jill Tarter** (Astrophysicist) - Intelligent Life in the Universe — Is there anybody out there?

David Zambuka (Artist) - Are you a Martian?

21:00 - 22:30

Closing Ceremony and Concert at Sport - Concert Complex, Concert Hall



7 September 108 Minutes Round Table

Venue: Zvartnots Cathedral Closed event for participants of Round Table only.

The very first Starmus (2011) was a tribute to the first manned space flight and the person who performed it, Yuri Gagarin. It lasted exactly 108 minutes, probably the most crucial 108 minutes in the history of mankind. Nothing would be the same since then. To commemorate this exceptional event in history, the Starmus Round Table gathers the most brilliant minds of the humanity to discuss an important topic under the dome of a telescope during exactly 108 minutes. The Round Table participants are Nobel Prize winners, astronauts and musicians of high impact.





7 September Another World Concert

Venue: Sport-Concert Complex, Ice Arena

General Festival Ticket: 20.000 AMD for the youth up to 23 y.o. 25.000 AMD for general attendees https://www.starmus.com/tickets

*Another World Concert is included in the price of General Festival ticket





8 September Star Party

Venue: Garni Temple

Ticket price: 150 000AMD

https://www.starmus.com/tickets

Star Parties are organised near observatories or high up in the mountains where the participants can connect with the stars and "listen to their voice".

Traditionally, many music and science stars are also present at Star Parties, an exceptional occasion to rub shoulders with the most iconic characters of our times. Star Party Starmus VI will be held in Garni.

Approximately twenty professional telescopes will be delivered to Garni, so guests can connect with the stars. Garni was chosen by many reasons and one of them is that in 2015, one of the craters on Mars, in which water was detected was named after the village of Garni.



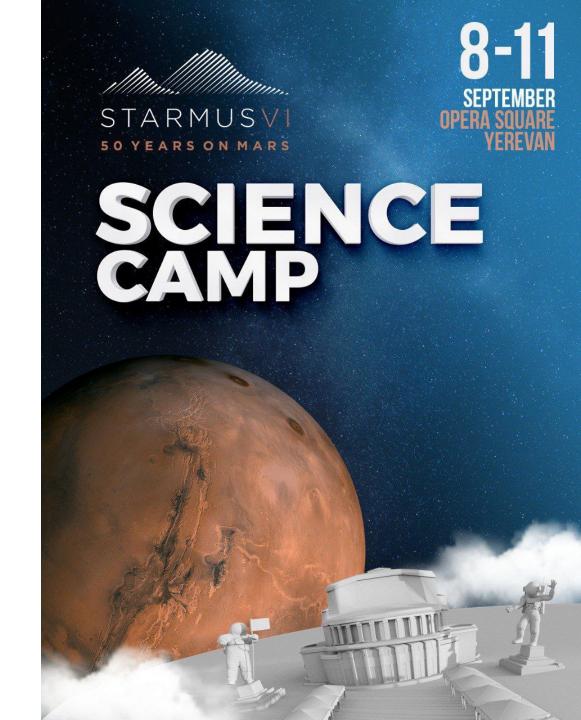


8 September – 11 September Starmus Science Camp

Venue: Freedom Square Entrance: free of charge

Booths:

- Astrophysics: Byurakan Observatory and YSU
- Laser Physics: Institute of Physical Research, Alikhanyan National Laboratory
- Drones: Center for Ecological-Noonsphere Studies, ANAU, Armat, Startup Armenia -Drone EduLab
- Robotics: NPUA, FAST, Robin the Robot Insitute of Chemical Research, LegoLab
- · Artificial Intelligence: FAST Foundation, Davit Yan, ManyChat, Arloopa
- AgroTech: ANAU, Center for Ecological-Noonsphere Studies,
- Nuclear Energy: ArmAtom Nuclear Research
- Epidemiology: AUA
- Earthquake Studies: Institute of Geophysics and Engineering seismology named after A.Nazarov
- · Blue Green Planet: AUA
- Commercialization of Science: ASUE, National Center for Innovation and Enterpreneurship, Startup Foundation
- Biology: Institute of Molecular Biology, Armenian Bioinformatics Institute, YSU
- Telescope Shops: Explore Scientific
- Zoology and Botanics: Center for Ecological-Noonsphere Studies, Institute of Botany after A.L. Takhtajyan, Institute of Zoology of Scientific Center of Zoology and Hydrocology
- Assisting Technology: UNDP, Oqni , Arm Bionics, Chemical Physics
- · Physics Space: Alikhanyan institute





8 - 9 September Space Technology Conference

Venue: Sport-Concert Complex, Concert Hall
General Festival Ticket:
20.000 AMD for the youth up to 23 y.o. I 25.000 AMD for general attendees

https://www.starmus.com/tickets

*Space Technology Conference is included in the price of General Festival ticket

8 September (Thursday)

11:00 - 13:00

Jean-Jacques Dordain (Aerospace engineer and former DG of ESA)-Opening

George Nield (Astronaut and Engineer) - The Commercial Space Age **Nagin Cox** (Systems Engineer) - Space and technologies: Mars Surface Operations

Joel Parker (Astrophysicist) - To the Edge of the Solar System and Beyond: Flying along with NASA's Horizons Mission

Michael Kezirian (Adjunct Professor, USC & President, Century Fathom & President, International Space Safety Foundation) - Space Sustainability: Orbital Space Environment and Integration (with the airspace)

Juan Thomas (Environmental Scientist) - Hernani Satellite trends and technologies today

9 September (Friday)

11:00 - 13:00

Harold Kroto (Chemist, Nobel Laureate) - "Sonny" White: Interstellar flight, the ultimate moor shot

Garrett Reisman (engineer and former NASA astronaut) - SpaceX - Amazing journey from Falcon to Starship

Adam Burrows (Full Professor of Astrophysical Sciences) - Issues for the New Space Economy: Space Debris, Space Traffic Management

Armen Kherlopian (data scientist, researcher, entrepreneur, investor and expert in AI) - Five Hazards of Space Health

Arbi Karapetian (Section Manager - Flight Electronics at NASA Jet Propulsion Laboratory) - From Space to Earth - NASA/jpl VENTILATOR FOR covid - 19 patients

Alfred McEwen (planetary geologist and director of the Planetary Image Research Laboratory (PIRL) - High resolution imaging of planetary surfaces

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