

THE INTERNATIONAL YEAR OF ASTRONOMY 2009 IN ROMANIA

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Abstract. 2009 has been an entirely exceptional year for the astronomical community as well as for the general public. 400 years ago Galileo Galilei looked at the sky through a telescope and discovered a different Universe than that of before him. The simplest telescope that we can imagine today proved that the Sun is not immaculate and has numerous spots, Venus has phases like the Moon, and Jupiter has a mini-system of satellites; these are just a few discoveries of the scientist who becomes later the father of the modern astronomy. All these determined the International Astronomical Union in its 2003 General Assembly, which took place in Sydney, to propose to the UNESCO and the United Nations that 2009 have to become the International Year of Astronomy. Its mission was clear: the International Year of Astronomy, IYA2009, is a global effort initiated by the International Astronomical Union (IAU) and UNESCO to help the citizens of the world rediscover their place in the Universe through the daytime and nighttime sky, and thereby engage a personal sense of wonder and discovery. This initiative has a huge and unbelievable echo all over the world: 148 national nodes, 40 Organisational Nodes, 110 national websites, 12 Cornerstone Projects, 11 Special Task groups.

Key words: International Year of Astronomy – Romanian astronomical triennium – communication – outreach.

1. INTRODUCTION

It happened that the IYA2009 to be in Romania the final event of a beautiful triennium which started in 2007 with the International Heliophysical Year IHY, and especially 2008, the National Year of Astronomy.

Indeed, 2008 marked the 100 years since the foundation of the first research institute dedicated to the study of the Universe: The Bucharest Astronomical Observatory, the principal nucleus of the Astronomical Institute of the Romanian Academy. The same 2008 year, marked the centenary of the Dubăsarii Vechi

Astronomical Observatory, situated on the right bank of the river Dniester, today a commune in Criuleni district, the Republic of Moldova. It belonged to Nicolae Donici, one of the founders of the International Astronomical Union.

Romania adhered from the very beginning at the IYA2009 and adopted the logo (see Fig. 1 below for the Romanian logo), as well as the banner, and realised its own website at <http://www.astro.ro/IYA2009.html>.



Fig. 1 – IYA2009 Romanian logo.

The adhesion means participation to the international projects all over the year, as well as to original initiatives coming from a great number of junior and high schools, amateur astronomical observatories (some of them private), museums, planetariums, aso.

2. INITIATIVES AT NATIONAL LEVEL

We will begin by enumerating initiatives at national level, independent from those belonging to local action groups.

A special moment is represented by the collection of postage stamps dedicated to the IYA2009: UN appointed the United Nations Educational, Scientific and Cultural Organization (UNESCO) as the leading agency for this major event. With the same view, POSTEUROP, the specialized postal body, which establishes the themes for the EUROPA philatelic issues, had decided that the 2009 theme should be ASTRONOMY.

On this occasion, ROMFILATELIA introduced into circulation the postage stamps issue Astronomy. Under the title EUROPA, the subject is approached by each country member state of this body, according to the nationality.

The postage stamp with the face value of RON 2.40 illustrates in a compositional background Galileo Galilei's portrait, next to the telescope that he invented to watch the sky, and the image of the Tower of Pisa, the building that is closely related to the experiences through which the great scientist grounded the existence of the Earth's movement.

The postage stamp with the face value of RON 9.10 illustrates a part of the map of the boreal sky constellations, together with inspiring images representing the movement of the planets, as well as the Universe that still hides many secrets which mankind has strived and still strives to discover.

The philatelic issue is accompanied by a special product – Engraved Stamp – created in a limited run printing of 350 copies by the renowned engraver artist Octavian Ion Penda, reproducing the elements of the stamp head of the issue with the face value of RON 2.40. Next to the engraving are attached the 2 postage stamps of the issue in original. These exclusive products are numbered in red from 001-350, bear the ROMFILATELIA embossed logo, and are signed by the author. (Fig. 2)

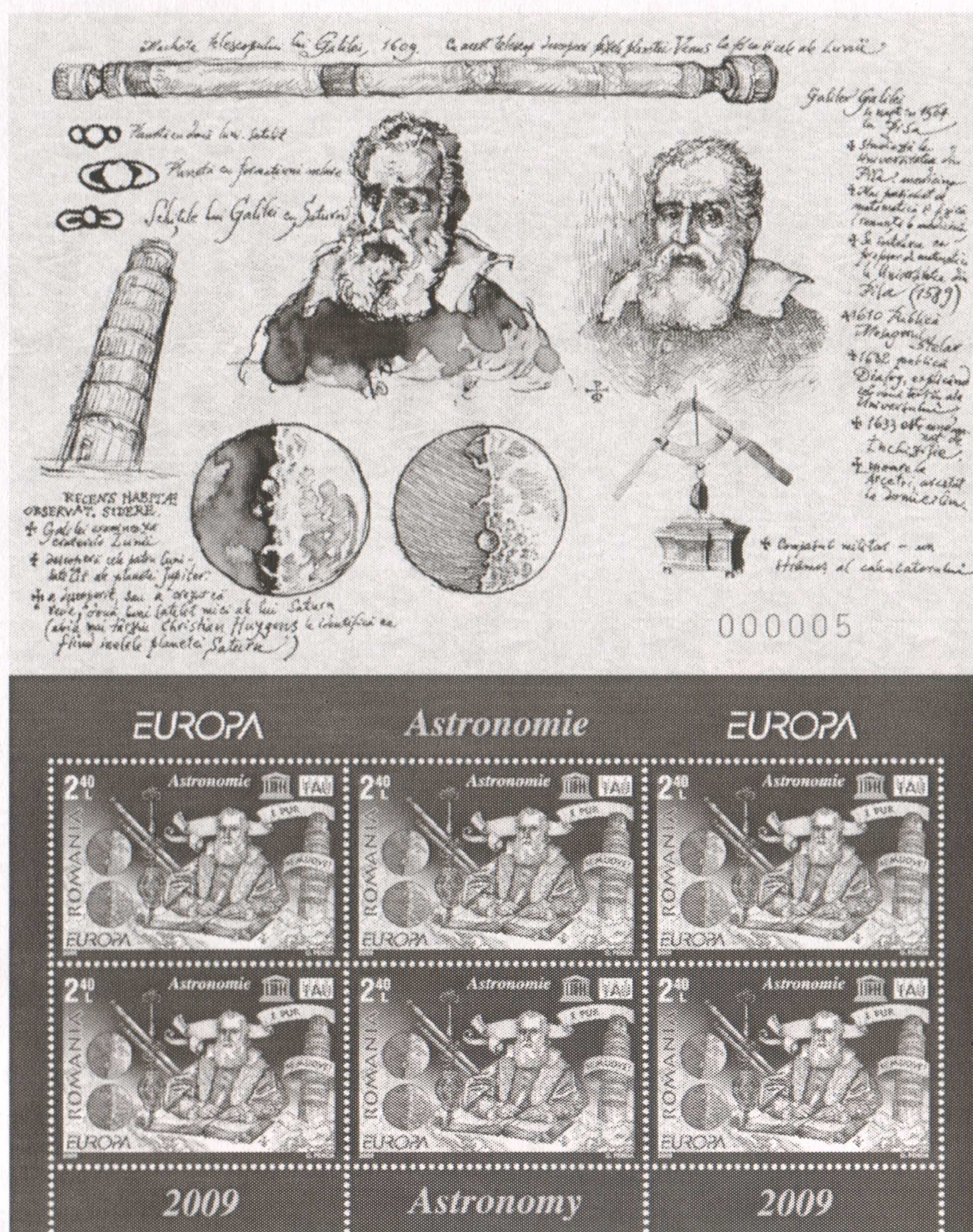


Fig. 2 – Romanian philatelic issue IYA 2009.

In 2009 we celebrated also 40 years since the first step on the Moon. At the fulfilment of 40 years since the great dream of humanity became reality – to conquer other heavenly bodies, ROMFILATELIA introduced into circulation the postage stamps issue “Apollo 11 – 40 years since the first step on the moon”.

In a historic day for the terrestrials, the philatelic collectors and not only rediscovered a dream turned into reality, through the perforated souvenir sheet, the envelope “First Day Cover” of the issue, maxicards and the special philatelic document designed by Alec Bartos (Fig. 3).



Fig. 3 – The special philatelic document designed by Alec Bartos.

In the same category there is the special envelope that presents the Romanian logo of the IYA2009 and the principal telescope of the Astronomical Institute of the Romanian Academy: Prin-Merz double astrograph, 38/600 cm (Fig. 4).



Fig. 4 – The Romanian special envelope for IYA 2009.

A silver medal was dedicated to the IYA2009 made by the Romanian National Bank (BNR) and available for numismatics reason. The set contains valid Romanian coins with the values of 1 ban, 5 bani, 10 bani and 50 bani. The medal is made of silver and weights 15.5 grams as BNR documents stated. One side of the medal has the official emblem of the IYA2009 and the circular inscription “ANUL INTERNATIONAL AL ASTRONOMIEI ROMANIA 2009” (The International Year of Astronomy Romania 2009). The other side of the medal has in centre a graphic composition that represents the dome of the Bucharest Astronomical Observatory of the Romanian Academy, the telescope of the Galileo Galilei, his portrait and the planets of the Solar System, and at the exterior, in circular arches, the inscription “Descoperă Universul” (Discover the Universe).

The medal and the coins of the set are made in high quality conditions (see Fig. 5). The circulation is 1,000 copies. The set is presented in the form of a cover introduced into an etui, and the components are embedded in special places. The selling price is 110 RON, without VAT, for each set (about 27 euros).

An exceptional event was the success of the Romanian teams at the 2009 international astronomy Olympiads. Despite the fact that astronomy is not a curriculum subject, the Romanian team won the first place at the third edition of the International Olympiad of Astronomy and Physics, and the first place in Europe; we are speaking about four medals (twice gold and silver), one mention prize and a special prize. The competition took place in Iran (19–26 October 2009). This is the result of a high interest in astronomy and passion of both remarkable teachers and students.



Fig. 5 – The Romanian medal dedicated to IYA 2009.

The gold medallists were Ioana Zelko and Marius Constantin (from the International Lyceum of Informatics, Bucharest). Awarded in 2007 and 2008 with silver, Miruna Oprescu (Theoretical Lyceum “Ovidius” Constanța) equaled her performance, but in addition she was awarded with a special prize for the most clear thesis at the theoretical probation. Vlad Dumitru Mărgărint (National College “Gheorghe Roșca Codreanu”, Bârlad) is the winner of the second silver medal. Sandor Kruk (from the National College “Vasile Lucaciu”, Baia Mare – “bronze” last year) was awarded with a mention.

The competition gathered together some 100 competitors from over 20 countries. Taking into account all the teams from Europe, the Romanian team won the first place, ahead of Poland, Ukraine, Lithuania, Serbia, Slovakia and Belarus (in the Olympiad classification the Romanian students occupied the third position after the students from India and Iran).

After only a few weeks, a new Romanian team won other medals. In November took place in Hangzhou, China, the 14th International Olympiad of Astronomy. Our results: Silver medals: Sandor Kruk (National College “Vasile Lucaciu”, Baia Mare), Alberto Manca (International Lyceum of Informatics, Bucharest); Bronze medals: Ioana Zelko (International Lyceum of Informatics, Bucharest), Denis Derecichei (School “Dacia”, Oradea), Andrei Cuceu (School “Dimitrie Cantemir”, Baia Mare).

Obviously, all of them were awarded in Romania with the occasion of the closing ceremonies of the IYA2009.

3. HIGHLIGHTS OF THE IYA2009 IN ROMANIA

As it was expected, IYA2009 was a global celebration of astronomy and of its contributions to the society and culture. It stimulated the world's interest in astronomy and in science, generally speaking.

Being focused especially on the youth, the IYA represents a real platform for informing the public about the latest astronomical discoveries, in the same time highlighting the essential role of astronomy in knowledge and its remarkable contributions at solving the global problems.

The IYA2009 was launched at UNESCO headquarters in Paris (January 15–16, 2009) and a Romanian delegation was present.

The National Commission of Romania for UNESCO (NCR-UNESCO), in collaboration with the Committee for the IYA2009 in Romania, marked the opening of the IYA2009 at national level, in Sibiu, the cultural capital of Europe in 2007. The principal moments of the event were:

- The international seminar “Big Questions about the Universe”, February 6–7, 2009, ASTRA Library. The seminar was opened by a public lecture of Basarab Nicolescu, honorary member of the Romanian Academy;
- The festive moment of signing the Protocols of collaboration for the IYA2009 between NCR-UNESCO and the Sibiu authorities (Fig. 6);



Fig. 6 – Festive moment of signing the Protocols of collaboration for the IYA2009 between NCR-UNESCO and the Sibiu authorities.

- The spectacular moment of rocket launches and an IYA2009 balloon, event that took place in the centre of Sibiu. The event has a double meaning, the launching of the IYA2009 in Romania and the celebration of 500 years since the birth of Conrad Haas, who introduced for the first time in history the notion of rocket in stages (Fig. 7).



Fig. 7 – Balloon launch for the IYA 2009 in Sibiu.

The SPoC for Romania, Magda Stavinschi, presented the principal events of the first part of the IYA2009 during the Special Session “The IYA2009” at the IAU 27th General Assembly, Rio de Janeiro, Brazil and as co-organiser of the JENAM2009 Symposium “The IYA2009 in Europe”.

4. CORNERSTONE PROJECTS IN ROMANIA

4.1. SHE IS AN ASTRONOMER

It was one of the most spectacular events for a very simple reason. In Romania (as well as in Bulgaria, Macedonia, and Republic of Moldova) there is an old tradition to offer “mărțișoare” (the diminutive of March, in Romanian *Martie*) to girls and ladies at the beginning of March. It consists of a jewel or a small decoration tied to a red/white string. The medallion was now the IYA2009 logo. So, in the day of March 8 (the International Day of the Woman), after the events which highlight the role of the women in astronomy and reminded the contributions made by she-astronomers to the progress of science at international

and national levels, a huge number of ladies and girls received such kind of “mărțișoare”. They were given on streets and in parks also (Fig. 8). The red/white string was replaced later by the Romanian tricolour and it was spread all over the world.

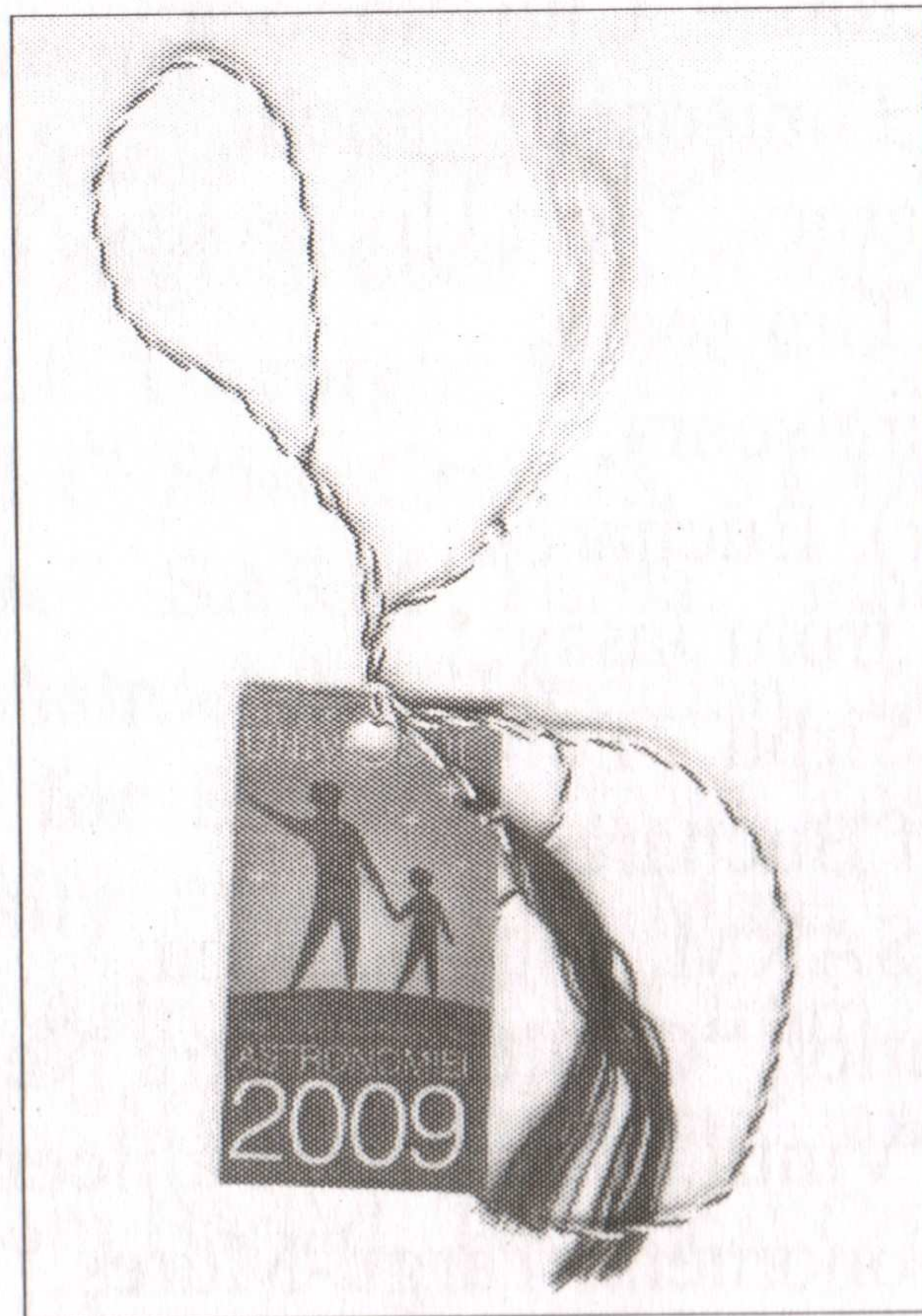


Fig. 8 – The Romanian “mărțișor” for IYA 2009.

4.2. 100 HOURS OF ASTRONOMY

The action *100 Hours of Astronomy* (2–5 April 2009) brought over 100 countries together in a planet-wide celebration of astronomy. The Romanian Astronomical Society of Meteors (SARM) kept the official website of this international event at <http://100deoredeastronomie.sarm.ro/>.

Globally speaking, the event brought together maybe the biggest number of participants. We only mention the participants from Romania:

- SARM: Târgoviște, București, Bacău, Cluj-Napoca, Sighetu-Marmației, Chișinău;
- Astronomical Association URANIA, Bucharest;
- Astroclub Bucharest;
- Astronomical Association Sirius, Bârlad;
- Astroclub „Meridian Zero”, Oradea;
- Astroclub “Delta Orion”, Tulcea;
- Astronomical Observatory “Amiral Vasile Urseanu”, Bucharest;
- Museum of Mineralogy – Planetarium – Astronomical Observatory, Baia Mare;
- Complex Museum of Natural Sciences – Planetarium Galați and Astroclub “Călin Popovici”, Galați;
- County Museum Argeș – Planetarium, Pitești;
- Complex Museum of Natural Sciences “Ioan Borcea” and Astronomical Observatory “Victor Anestin”, Bacău;

- Astronomical Observatory of the National Palace of Children, Bucharest;
- Observatory and the Planetarium of the University “Ștefan cel Mare”, Suceava;
- National College “Octavian Goga”, Sibiu;
- County School Inspectorate, Cluj-Napoca;
- Romanian Academy, Timișoara Branch;
- Astronomical Observatory, West University, Timișoara;
- Astroclub “Antares”, Timișoara;
- Astroclub “Altair”, Timișoara;
- Ștefan Balea (amateur), Bucharest;
- Amateur astronomers from Jassy;
- General School “I.D. Sîrbu”, Petrila;
- School Inspectorate of Bucharest;
- Astroclub “Borealis” SARM, Cluj-Napoca;
- Astronomical Association “Galileo”, Piatra Neamț;
- Group of astronomy “Vintilă Șiadbei”, Fălticeni;
- Group of amateur astronomers, Târgu-Mureș;
- Scholar Group of Aeronautics “H. Coandă”, Bucharest;
- School No. 5 “Elena Doamna”, Tecuci;
- <http://www.astronomy.ro>;
- School “Iuliu Maniu”, Zalău;
- Technical College “Al. Papiu Ilarian”, Zalău;
- Stargazers – Palace of Children, Craiova;
- Scholar Group “Tomșa Vodă”, Solca;
- Group of Physics and Astronomy “Quantum”, Suceava;
- School “Constantin Brâncuși”, Bucharest;
- National College “Gheorghe Lazăr”, Sibiu;
- Scholar Group for Arts and Trades “Ion Mincu”, Deva;

We mention that the Society for Meteors and Astronomy – Romania was highly recommended for the award two.

A highly remarkable event was “The Night of the Stars” organised by the British Council during the “Nights of the Cultural Institutes”. We are speaking about an interesting astronomy workshop that was backed by the young members of the “Urania” Astronomical Association.

4.3. GALILEAN NIGHTS

A replica event to “100 Hours of Astronomy” was the project “Galilean Nights”. On 22–24 October 2009, the IYA2009 Cornerstone Project “Galilean Nights” saw amateur and professional astronomers, enthusiasts and the public, talking to the streets, all around the globe, pointing their telescopes to the wonders that Italian astronomer Galileo observed 400 years ago.

SARM was the main organizer of the event, preparing observations, conferences, also, firstly in those places where they have offices but also in other places throughout the country.

The Bucharest Astroclub meets the public in one of the most busy places of the capital: The University circus.

Other participants: "Urania" Astronomical Society, Children's National Palace Observatory, National High School "Emil Racoviță", Planetariums of Pitești and Baia Mare, School No. 21 "Gheorghe Țițeica", School No. 14 "Ion Țuculescu" and National College "Carol I" from Craiova, STARMAX Astronomy, Astroclub "Borealis", "Eta Adromedae" SARM Turda, School No. 2 Galați, amateurs astronomers from Jassy, Astroclub "Meridian Zero" from Oradea, College "Anastasescu" and College for Economy from Roșiorii de Vede, Astronomical Observatory of the University "Ștefan cel Mare" from Suceava, Astronomical Observatory and "Antares" Astronomy Club from Timișoara, Children's Palace from Tulcea, High School "Mihai Eminescu" and Astronomical Association "Sirius" – UNESCO Club from Bârlad, Technical College "Al. Papiu Ilarian" from Zalău.

5. CLOSING CEREMONIES

The last part of the year was dedicated to the closing ceremony of the IYA2009 in Romania by a series of activities. Symposia, conferences, awards ceremonies, public lectures, gastronomy fair, science café are all part of the activities dedicated to mark the officially closing of the International Year of Astronomy 2009 in Romania.

Activities started at Târgoviște on November 27 through the national symposium "Love the Cosmos" organized by the SARM. Representatives of the astronomical associations, astronomical observatories, planetariums, junior and high schools, universities and informal groups have presented the final results of the projects "100 Hours of Astronomy" and "Galilean Nights". Worth to mention that they organized also the astrophotography exposition and the National Astronomy Conference for the "Youth ASTRO 2009 – Discover the Universe!"

Each student from the 2009 international Olympic astronomy and astrophysics teams (all of them awarded from gold to bronze medals) have been awarded during an event that was taken place at the "Henri Coandă" Aeronautical College, Bucharest. It was the same time when the winners of the international essay contest "Cassini" were mentioned and presented to the mass media representatives and public. The event attracted students, teachers, professors, educators, science managers, scientists, professional and amateur astronomers, journalists, and public. All shared a piece from a giant cake and a cup of champagne (December 4, 2009).

Dr. Zadig Mouradian, from Paris Observatory, had a talk about the couple Sun–Earth at the French Institute from Bucharest. The audience was made of college students, teachers, scientists, professors, and general public (December 8, 2009).

“The Sweet Planet – Astronomy and Gastronomy” or gastronomy fair dedicated to astronomy was part of the Minorities Gala that includes also music and dance (it was on December 10, 2009).

A science café took place at the British Council and was organized by *Ziarul Științelor* (The Science Newspaper), the official mass media partner of the IYA2009. (December 18, 2009)

For all the participants, the year 2009 opened the door towards a better knowledge of the Universe.

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