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NEWSLETTER

No 3, 29th August 2011

5th IOAA SILESIA POLAND 2011



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Monday, 29th August 2011

Today's Schedule

Students Katowice

- 6³⁰ - 8⁰⁰ breakfast at the hotel
- 8¹⁵ meeting on the buses in front of the hotel
- 8²⁰ - 18³⁰ scheduled trip (lunch during the trip)
- 19⁰⁰ - 20⁰⁰ dinner at the hotel
- 20⁰⁰ - 20³⁰ briefing
- 21⁰⁰ the first term of night observations or Planetarium observations

Leaders Kraków

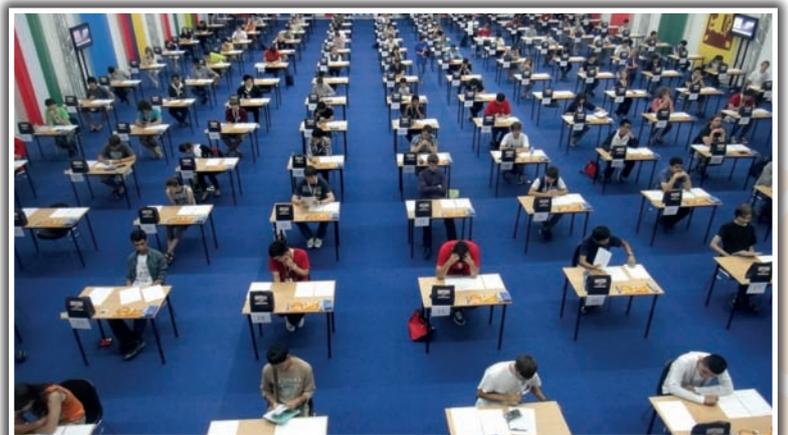
- 7⁰⁰ - 8⁰⁰ breakfast at the hotel
- 8⁰⁰ - 9⁰⁰ the translation of observational tasks and Planetarium tasks
- 9⁰⁰ - 11⁰⁰ IBM #2 (elections)
- 11³⁰ - 14⁰⁰ the discussion of data analysis tasks
- 14⁰⁰ - 15⁰⁰ lunch at the hotel
- 15³⁰ - 19⁰⁰ the discussion and translation of data analysis tasks
- 19⁰⁰ - 20⁰⁰ dinner at the hotel
- 20⁰⁰ - 23⁰⁰ the translation of data analysis tasks or free time

Theoretical problems

That's another rivalry day for the participants of 5th International Olympiad on Astronomy and Astrophysics. After solving team problems, there's time for individual tasks. One could feel the tension in the silence that gripped the hall, even though a few minutes earlier, in front of the entrance, the competitors seemed quite relaxed.

A team from Brazil – Rafael, Ivan, Tabata, Pedro and Gustavo – eagerly spoke about the team tasks: “*They were more difficult than during previous olympiads, but I think we coped with them quite well,*” said Tabata who also added that her team had to get used to calculators. It seems that the prohibition of using electronic appliances such as mobile phones or computers is taking its toll on the young astronomers, but Brazilians have nothing against it. “*We meet with friends from other teams, chat and walk. We have a rest from cell phones and Internet. It is actually quite pleasant.*”

The participants are also pampered by the weather. After the heat wave our region experienced this week, the temperature dropped to 20 Celsius degrees. Now, the students from other continents can finally believe that Poland is situated in a moderate climate zone. Nevertheless, it can be seen that some participants feel hot. But it's probably out of emotions.



the photos by Damian Jabłeka

A few words about Polish Amateurs Astronomical Society

For over ninety years, Polish Amateurs Astronomical Society has been bringing together astronomy lovers. The society aims at spreading the knowledge about the Universe in society. It does so by deepening its own knowledge about astronomy and related sciences, by preparing lectures, organizing scientific and popular-science conferences, building observational apparatus and observatories, organizing sky displays and conducting one's own sky observations, often of scientific nature.

Polish Amateurs Astronomical Society began its activity in 1919, when a group of students from Mikołaj Rej Lower Secondary School in Warsaw founded Astronomy Amateurs Club. In 1921, the society was registered as Amateurs Astronomical Society, bringing together not only students, but also adults. In 1928, as a consequence of some changes in statutes, the society received the name Polish Amateurs Astronomical Society. Among the then members, there are many who later became outstanding Polish astronomers, for instance Felicjan Kępiński, Waclaw Dziewulski, Edward Stenz, Michał Kamieński, Eugeniusz Rybka, Jan Gadomski and others. The statutes modification allowed for the opening of regional departments: in Częstochowa in 1928, in Warsaw and Lvov in 1929 and in Poznań in 1933.

During World War II, the Society was dissolved at occupiers' command.

After Hitler's occupation, in Cracow, some attempts were made to reactivate the society. In 1948, Polish Amateurs Astronomical Society (seat in Cracow) was registered. In the same year, 6 departments were opened: in Cracow, Łódź, Myślenice, Nowy Sącz, Warsaw and Wrocław. Later, departments in other places appeared: around 40 cities had their departments of PAAS. Nowadays, PAAS has a few hundred members in 15 local departments: Białystok, Gliwice, Cracow, Krosno, Lublin, Łódź, Pomerania, Poznań, Puławy, Rozdrażew, Szczecin, Silesia, Toruń, Warsaw and Zielona Góra.

Those responsible for scientific observations, choose between a few thematic sections:

- Comets Observers Section (Cracow),
- Sun Observations Section (Warsaw),
- Positions and Occultation Observations Section (Łódź),
- Variable Stars Observers Section (Warsaw),
- Meteoroids and Meteorites Section (Cracow).

The observations conducted by the members of these sections are published in world-renowned scientific publishing houses.

PAAS attracted a few thousand people, including a few outstanding ones, especially when it comes to exact sciences.

Since 1919, a magazine "Urania" has been published. It was combined with "Astronomy Progress," a magazine of Polish Amateurs Astronomical Society bringing together professional astronomers. They form "Urania – Astronomy Progress," abundantly illustrated and featuring articles of high scientific value.

Marek Ledwoń



Magławica "Pelikan" w gwiazdozbiórze Łabędzia (c) Tom-cio
06.08.2007 MT-800+ST-2kXM+EQ-6 7x1200+Hα

Photos by members of PTMA

THE MOON ROCKET

— INTERESTING FACTS

Saturn V – one of the biggest and most powerful rockets constructed by men – the vehicle that allowed the mankind to go to the moon and back was described numerous times in many publications. We know exactly its diameter, height and lifting power. But what those numbers mean? Well, let's check it out...

- If your car gets 15 miles to the gallon, you could drive 18 million miles or about 400 times around the world with the propellants required for the Apollo/Saturn lunar landing mission. The Saturn V launch vehicle contained 5.6 million pounds of propellant (or 960,000 gallons).
- The fully loaded Saturn V launch vehicle with the Apollo Spacecraft stood 60 feet higher than the Statue of Liberty on its pedestal and weighed 13 times as much as the statue.
- During its 3.5 second firing, the Apollo Spacecraft's solid-fuel launch escape rocket generated the horsepower equivalent of 4,300 automobiles.
- The power of one Saturn V was enough to place all U.S. previously launched manned spacecraft in earth orbit.
- The F-1's fuel pumps pushed fuel with the force of 30 diesel locomotives. In the first stage, in the tank there is enough liquid oxygen to fill 54 railroad tank cars.
- The interior of each of the first stage propellant tanks was large enough to accommodate three large moving vans side by side.
- There was approximately 2-1/2 million solder joints in the Saturn V launch vehicle. If just 1/32 of an inch more weld were left on each of these joints and an extra drop of solder was used on each of these joints, the excess weight would be equivalent to the payload of the vehicle.

Source: Apollosaturn.com



Photo: By NASA

