

The Morning Star

No #03
14.08.2023



Województwo
Śląskie

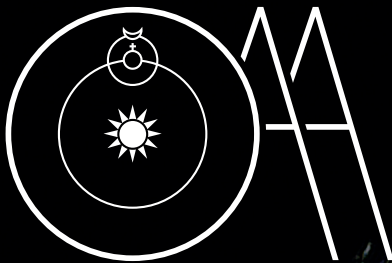
Official Partners



Media Patron:



Poland 2023



→ Theory round

→ Our family photo

→ Maria Skłodowska-Curie

Foto: Kamil Jurczyszyn

**Schedule of 16th International Olympiad
on Astronomy and Astrophysics, Poland**

Day 5 → 14th August 2023 Monday

Students

- 07.00—08.30 Breakfast
 - 08.30—09.30 Transfer to the ICC (group 1)
 - 09.15—10.15 Transfer to the ICC (group 2)
 - 10.00—10.45 Transfer to the ICC (group 3)
 - 10.45—11.45 Transfer to the ICC (group 4)
 - 11.30—12.30 Transfer to the ICC (group 5)
 - 10.00—15.00 Observation round
 - 12.00—13.00 Transfer to the hotel (group 1)
 - 12.45—13.45 Transfer to the hotel (group 2)
 - 13.30—14.30 Transfer to the hotel (group 3)
 - 14.15—15.15 Transfer to the hotel (group 4)
 - 15.00—16.00 Transfer to the hotel (group 5)
 - 16.00—17.00 Lunch
 - 17.00—19.00 Free time and group activities at the hotel
 - 19.00—20.30 Dinner
 - 21.00—23.00 Bonfire and night observation
- Team Leaders**
- 07.00—09.30 Breakfast
 - 09.30—13.30 IBM. IOAA working matters
 - 13.30—14.45 Lunch
 - 14.45 Meeting point in the parking lot
 - 15.00—15.30 Transfer to the Czantoria Cable Railway
 - 15.30—19.00 Czantoria Cable Railway, hiking, toboggan run, free time
 - 19.15—19.45 Transfer to the hotel
 - 20.00—00.00 Dinner and party

The Weather forecast

Monday, Aug 14th 2023

Wind NW

W, SW

5-10 km/h

Lowest temperature (morning)

15-17C / 59-62,5F

Highest temperature (afternoon)

28-30C / 82,5-86F

Sunrise **05:31**

Sunset **20:06**



Theory round



MARIA ARAKELYAN (ARMENIA)

"I am excited before theoretical tasks, I have some expectations, but I want to keep them to myself. Yesterday's visit to the Silesian Planetarium was great - it's the most beautiful planetarium I've been to in my life. The stars were wonderful."



Participants of the 16th International Olympiad on Astronomy and Astrophysics, Silesia, Poland 2023

Maria Skłodowska-Curie

(1867-1934)

Maria was born in Warsaw. She was one of five children of the Skłodowski family.

When years later, already as a famous woman, Maria recalled her childhood, she said that the attraction for knowledge and interest in science was instilled in her by her father. From early childhood, Skłodowska was fascinated by his technical interests.

After learning at home and in an nearby school, Maria was enrolled in the Women's Gymnasium located at the heart of Warsaw. It was an excellent school and, in fact, the only educational opportunity for women at that time. At the age of 16, she graduated with the top grade. She wanted to further her education, but it was only possible abroad. Her dream was the Sorbonne in Paris.

For the journey, she took clothes, food, a mattress, and a stool. In Paris she lived in rooms without heating - in winter, water left in a bowl or tea in a cup would freeze. Maria had to cover herself with clothes to survive the night. At that time, her standard meal consisted mainly of tea and barely buttered bread. Sometimes she allowed herself to buy fruit, chocolate, or meat.

Despite many problems, Maria earned a bachelor's degree in physics and in mathematics. She passed a teacher's exam that qualified her to teach in women's high schools.

Maria received a scholarship that allowed her to study the magnetic properties of metals. While working in the laboratory, she met her future husband, Peter Curie. When Maria chose her dissertation topic: Becquerel's Radiation, the issue was fresh and fractious in the sciences. No wonder that describing radiation that originates in rocks (and simultaneously penetrates opaque materials) can be intriguing. Maria chose a new direction in her career, and her scientific life began to accelerate.

Inspired by the study of natural radioactivity, she decided to delve deeper into this subject. She used an instrument that her husband, Peter Curie, had developed together with his brother. An electrometer made it possible to accurately measure the activity of a preparation containing a radioactive element. Using it, she discovered a new element. By examining the samples, she knew which of the known elements were sources of radiation. She also knew the relationship between the amount of an element and the



amount of radiation. Yet, something didn't add up in some of the samples. The instruments indicated that there was more radiation. Maria drew the following conclusion: a previously unknown radioactive element is present in some samples. Together with her husband, using chemical analysis, she discovered polonium. Shortly after that, she discovered another element, radium.

Maria Skłodowska-Curie was the first woman to win the Nobel Prize for her research on radioactivity.

Innovative research gave her fame and scientific standing. Her husband Peter received a new created Department of Physics at the Sorbonne - Maria was to become an assistant professor and head of the laboratory. The couple had two daughters. Unfortunately the poor working conditions in the laboratory set up in an unheated shed caused Maria to develop tuberculosis. Constant radiation exposure slowly contributed to the development of leukemia. The unexpected death of her husband, who fell under a speeding carriage while deep in thought, added to her worries. Despite the personal tragedy, Maria did not intend to slow down the pace of her research.

Maria built the Radium Institute in Paris, where she worked until her death. She was the first woman in history to win two Nobel Prizes. The research methods she developed are still among the basic ones in radiochemistry. She was one of the most eminent scientists in the world.

dr Tomasz Rożek

Official Partners

Media Patron



Województwo Śląskie



Ministerstwo Edukacji i Nauki



PLANETARIUM Śląski Park Nauki



Fundacja empiria i wiedza



Europejskie Miasto Nauki Katowice 2024



Górnośląsko-Zagłębiowska Metropolia



AKADEMIA KOPERNIKAŃSKA



TVP NAUKA