

The Morning Star

No #07
18.08.2023



Województwo
Śląskie

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Media Patron:



→ Moderation

→ Ogrodzieniec Castle

→ Stefan Banach

foto. Karol Jurczyński

Day 9 → 18th August 2023 Friday

Students

- 07.00—08.30** Breakfast
- 08.30** Meeting point in the parking lot
- 08.45—09.45** Transfer to Guido Coal Mine (group 1)
- 09.15—10.15** Transfer to Guido Coal Mine (group 2)
- 09.45—10.45** Transfer to Guido Coal Mine (group 3)
- 10.00—14.15** Guided tours in groups
- 13.00—13.30** Transfer to the botanical garden (group 1)
- 13.45—14.15** Transfer to the botanical garden (group 2)
- 14.15—14.45** Transfer to the botanical garden (group 3)
- 13.30—18.00** Group activities in the botanical garden (lunch during a trip)

- 17.00—18.00** Transfer to the hotel (group 1)
- 17.30—18.30** Transfer to the hotel (group 2)
- 18.00—19.00** Transfer to the hotel (group 3)
- 19.00—20.30** Dinner

Team Leader

- 07.30—09.00** Breakfast
- 09.00—15.00** Moderation
- 15.00—16.30** Lunch
- 17.00—19.00** Final IBM
- 19.00—20.00** Dinner
- 20.00—22.00** Final IBM



The weather forecast

Friday, Aug 18th 2023

Wind

NW

10-15 [25-45] km/h

Lowest temperature (morning)

19-20C / 66,2-68F

Highest temperature (afternoon)

26-28C / 78,8-82,4F

Sunrise **05:35**

Sunset **19:58**



Ogrodzieniec

On the seventh day of the Olympics, groups of participants visited the ruins of the castle in Ogrodzieniec, built in the 14th century.



HODA POURGHOLAMI MARKIEH
Iran Team Leader, Gold Medalist of the 12th IOAA in 2018

"I noticed that the task creators were very creative this year and had new, interesting ideas. The observation round carried out in the hall is also something that was not present at the 12th IOAA. I suspect that many participants were a little stressed during the tasks, but I know from my experience that right after the Olympiad they will start to miss the people they met here and the atmosphere."

Planetarium – The Silesian Science Park

After an exhausting round of tasks in the Planetarium, the participants visited the Planetarium – The Silesian Science Park. Among many stations, such as an earthquake simulator or a historic Zeiss star projector, participants of the Olympiad could play the role of a weather presenter and see that showing places on the map when instead of it, only a green screen is visible is not so easy...



Team Leaders in Wisła

The Crystal Mountain Hotel in Wisła is a place where from the first day, team leaders work hard on tasks, their translation and finally their evaluation. It's a huge amount of responsibilities. On the sixth day of the Olympiad, the moderation took place - team leaders and markers checked all the works point by point until late at night, discussed the grades and analyzed the solutions of the tasks made by the participants of the Olympiad.



Stefan Banach

(1892–1945)

He is called the father of the Polish school of mathematics.

Stefan Banach was born in Krakow on March 30, 1892, and raised in a foster family. He only met his father. Life was certainly not easy for him, but he showed exceptional mathematical and linguistic abilities at school. After passing the exam he started to study at the Lwów Polytechnic, at the Faculty of Civil Engineering. One day in 1916, a young scientist Hugo Steinhaus was walking in the park in Krakow when he heard two men saying, "Lebesgue's integral." He was stunned by this fact because this term was a novelty, known only to specialists. Steinhaus approached the young men. One of them was Stefan Banach, and the other was Otto Nikodym, a graduate student in mathematics and a teacher. The men explained to Steinhaus that they often met together with another student, Witold Wilkosz, to discuss mathematics for pleasure.

Steinhaus, curious about his new acquaintances, told the students about an interesting scientific problem he was working on at the time. How surprised he was when, after a few days, he received a ready solution from Banach! They soon published it as a joint paper in the Bulletin of the Cracow Academy.

In 1922 Stefan Banach defended his habilitation thesis. After another few years, he became a professor. He became one of the founders of a new mathematical field called functional analysis. Young, talented mathematicians gathered around Steinhaus and Banach, who created the Lviv School of Mathematics. Banach created almost 60 scientific papers in that period, but he also wrote many books and textbooks. One of the most famous is *The Theory of Linear Operations*. The Pole became very recognizable in the world of mathematicians. His concepts, such as "Banach space," are known today to every mathematician in the world.

When the war broke out, Stefan Banach found himself at the University of Lviv as dean of the Faculty of Mathematics and Physics. Under the German occupation, the universities were closed. The academic staff, who comprised Polish intelligentsia, was exposed to the danger of arrest, deportation to camps, or even death. Professor Rudolf came to help his colleagues. At that time, he was working on the world's first vaccine against spotted fever. The Germans gave him more freedom of action because of the high demand for the vaccine, also among German soldiers. Weigl could therefore employ workers as... lice



feeders. Banach was one of them. The activity itself was not time-consuming, so Stefan Banach could conduct scientific work. The work at the Weigl Institute was partly a cover for his underground activities and secret scientific courses.

Despite the war, the mathematicians tried to maintain normality. Their meetings in the „Szkocka” café became famous. They would discuss various issues, often writing the solutions in pencil directly on the tables or napkins. After they lost their notes several times, Banach's wife, Łucja, bought a special notebook in which they noted riddles or solutions. The book was in the café, and visitors could write down answers at any time. Sometimes they received a reward, for example, as a live goose. Specific issues remain unsolved today and are waiting to be deciphered.

Strange as it may seem, Banach was utterly undisturbed by the café noise and loud music. He was able to concentrate his thoughts in any circumstances. Moreover, Banach enjoyed the company of people and lively discussions - many of his works resulted from disputes with students. He was also a frequent guest at private balls. Sometimes students saw Banach giving a lecture in a tailcoat at eight in the morning. At first, they suspected that he had some important lectures that day, but they soon realized that Banach's way to work led straight from the last dance at the balls. Stefan Banach lived to see the end of the war, but he became very ill and died of lung cancer in 1945.

dr Tomasz Rożek

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