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### Polish Physical Society in Poznań

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In 1903, the Königliche Akademie zu Posen was founded in Poznań. After World War I, in 1919, this Akademie became the foundation for organizing the physics department at the University of Poznań and then also a branch of the Polish Physical Society. The Poznań Branch of the Physical Society was created on June 30, 1923. The first elected chairman of the Branch Board, Professor Tadeusz Pęczalski, built from scratch the Department of Theoretical Physics of the University of Poznań. In 1935, Prince Louis de Broglie was a guest of this department and gave a lecture discussing his research in the field of wave mechanics. After World War II, the Poznań Branch was revived and registered on May 21, 1949. It was consecutively headed by eminent scholars: Professor Szczepan Szczeniowski, Professor Stanisław Loria and Professor Arkadiusz H. Piekara. Over the years, five congresses of Polish physicists were held in Poznań, i.e., in 1930, 1952, 1969, 1991, and 2013.

topics: Polish Physical Society (PPS), Poznań Branch of PPS, chairmen of Poznań Branch of PPS, University of Poznań

## 1. Historical survey of University of Poznań

The University of Poznań has a long tradition dating back to the 16th century (the Lubrański Academy, the Jesuit College). The history of Poznań records many efforts made by the Polish community to establish a higher education institution in the city. For many centuries, however, these efforts were fruitless. But the idea of opening a local university was always alive as an expression of aspirations of the entire community of Wielkopolska (Greater Poland).

Eventually, after World War I, when Poland regained its independence, local authorities proceeded to organize a university in Poznań which was inaugurated as early as on May 7, 1919.

The Faculty of Philosophy was opened as its first department embracing both the humanities and the sciences. Later, in 1925, it was divided into the Faculty of Humanities and the Faculty of Mathematics and Natural Sciences. In the academic year 1919–1920, the university admitted about two thousand students.

The outbreak of World War II in 1939, when Poznań was annexed into Germany, interrupted the operation of the University of Poznań. The Nazis adapted some of the university buildings for other purposes and most of the university equipment was destroyed. Many research workers were arrested in 1940 and later during the occupation of Poland but that did not put an end to the university's activity. The University of Poznań, at that time called

the University of the Western Territories, went underground and continued its work. Ninety-seven students graduated from the university under those extraordinary and dangerous conditions and some another hundred completed two or more courses.

After the war, despite the heavy toll it took on the academic staff (116 people, including 40 professors and associate professors) and tremendous damage to the equipment, the university started recruiting students as early as in 1945, when it registered about four thousand who joined various faculties and courses. In 1955, the university was named after the great Polish poet, Adam Mickiewicz.

# 2. Historical outline of Polish Physical Society in Poznań

Before World War I, in 1903, the Higher Teachers Education Center, better known as the Königliche Akademie zu Posen, was founded in Poznań. The director of this institution, Paul Spiess (1862–1925), a physicist by profession, provided very good equipment for the physics unit which during the Prussian partition was located on the second floor of the Collegium Minus (see Fig. 1). The collections of this unit became the basis for organizing the physics department at the University of Poznań in 1919 and then the Poznań Branch of the PPS.

On January 30, 1919, the Faculty of Philosophy was set up as the nucleus of the University of Poznań, and inaugurated on May 7 of the same year. Apart from the humanities, this faculty included a section of mathematics and natural



Fig. 1. The historic, neo-Renaissance building of the Collegium Minus of the University of Poznań [1].

sciences which, in the academic year 1924–1925, was transformed into the Faculty of Mathematics and Natural Sciences.

From 1919, research in physics was carried out in the Division of Experimental Physics (first headed by Professor Alfred Denizot and from 1937 to 1939 by Professor Henryk Niewodniczański) located in the Collegium Minus as well as in the Division of Theoretical Physics (headed by Professor Tadeusz Pęczalski). In 1922, the Division of Medical Physics (headed by Professor Stanisław Kalandyk) was founded at the Faculty of Medicine of the University of Poznań.

Research conducted in these divisions concerned the theory of relative motion of bodies in the gravitational field of the Earth [2], the theory of the specific heat of solids [3], the kinetic theory of gases, the electric arc and fluorescence of vapors and gases, the application of short electromagnetic waves and the piezoelectricity and conductivity of electrolytes. Other fields of research included atomic and molecular spectroscopy, nuclear physics, metals and alloys, ion diffusion in halide salts at high temperatures and electric conductivity of salts. Some studies focused on thermoemission of ions and electrons from metals in an environment of vapors and gases, ionization, kinetics of explosive reactions and catalysis (Professor Kalandyk) [4].

In the years 1919–1939, research workers in the above-mentioned divisions published 95 papers, seven of them defended their doctoral theses and one — a post-doctoral dissertation (habilitation).

The Poznań Branch of the Polish Physical Society was inaugurated on June 30, 1923. The first chairman of the Branch Board became Professor Tadeusz Pęczalski (see Fig. 2) who built from scratch the Department of Theoretical Physics of the University of Poznań. Professor Pęczalski was the chairman of the Poznań Branch of the PPS in the years 1924–1928. In 1928–1929 the branch was headed by Professor Władysław Smosarski and then from 1930 for several years again by Professor Pęczalski.

The Poznań Branch of the PPS was visited by outstanding international physicists. In 1927, Professor Paul Langevin gave a lecture entitled



Fig. 2. Professor Tadeusz Pęczalski [1].



Fig. 3. Prince Louis de Broglie (the 1929 Nobel laureate in physics, second from the left) in Poznań on February 20, 1935 at the Collegium Minus of the University of Poznań; first from the left is Professor Tadeusz Pęczalski; and third from the left — Professor Stanisław Runge, the then rector of the university [1].

Sur les ondes acoustiques. In 1935, prince Louis de Broglie was a guest of the Department of Theoretical Physics (see Fig. 3) and delivered a lecture discussing his research in the field of wave mechanics. Also, Professor Irène Joliot-Curie presented a lecture in Poznań on artificial radioactivity [4, 5].

After the liberation of Poznań in 1945, the university was rebuilt. With great effort and organizational skill, the Poznań physics was resurrected by Professor Szczepan Szczeniowski. He also brought about the resumption of activities of the Poznań Branch of the Polish Physical Society.

Following World War II, the Poznań Branch of the PPS was registered on May 21, 1949. It was consecutively headed by the following eminent scholars: Professor Szczepan Szczeniowski, Professor Stanisław Loria, and Professor Arkadiusz H. Piekara (see Fig. 4) [1].

Professor Szczeniowski, whose life's work is the six-volume textbook entitled *Experimental Physics*, became a member of the PPS Main Board and the editor-in-chief of the *Acta Physica Polonica* journal. This science magazine was published in Poznań from mid-1949 to 1951.







Sz. Szczeniowski (1949-1952)

S. Loria (1952-1955)

Arkadiusz Piekara (1955-1956)

Fig. 4. Chairmen of the PPS Poznań Branch immediately after World War II: Szczepan Szczeniowski (1949–1952), Stanisław Loria (1952–1955), Arkadiusz Piekara (1955–1956).

In the following years, Professor Marek Kwiek, Professor Edmund Karaśkiewicz, Professor Andrzej Pilawski, Professor Zdzisław Pająk, Professor Antoni Śliwiński, Professor Jerzy Małecki, Professor Jerzy Pietrzak, Professor Jadwiga Stankowska, Professor Andrzej Dobek, and Professor Stanisław Hoffmann also served as chairpersons of the Poznań Branch of the PPS.

Professor Henryk Drozdowski has been the chairman of the Board of the Poznań Branch of the PPS since January 1, 2017, and he succeeded Professor Roman Świetlik and Professor Alina Dudkowiak.

Professor Tadeusz Hilczer, secretary of the Poznań Branch in 1953–1984, and Professor Andrzej Pilawski, who worked 25 years for the branch, were the employees with the longest tenures as members of the branch authorities.

Five congresses of Polish physicists were held in Poznań, i.e., in 1930, 1952, 1969, 1991, and 2013.

As of 2020, the Poznań Branch of the Polish Physical Society claims 134 members [5].

#### References

- [1] Archives of the Adam Mickiewicz University in Poznań.
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- [4] State Archives in Poznań.
- [5] The 46th Extraordinary Congress of Polish Physicists: 100 Years of the Polish Physical Society, Bulletin, Warsaw, October 16– 18, 2020.