

Cosmology schools in Poland

A participant recollects

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I would like to thank the Organizing Committee of the School for inviting me to write this introduction. We agreed that I would present the history of the Cracow Cosmology Schools, of which this School is a descendant.

In Poland after World War II, several scientific centers were strongly interested in the Theory of General Relativity. Moreover, there existed the common Wrocław-Warsaw seminar, in which physicists, mathematicians and astronomers participated. So in 1968, due to the leadership and efforts of Jan Kubikowski and with help of Andrzej Zięba, both of Wrocław, a School was organized as the second summer school of the Polish Astronomical Society (the first was the Astrophysical School organized in Limanowa in the same year). After that the School was organized every two years, despite the unexpected and untimely death of the main organizer, Prof. Kubikowski (Fig. 1).



Fig. 1: Prof. Jan Kubikowski (9.X.1927–11.XI.1968)

Starting from the School in 1970, I was involved in the in organisation of the Schools, both administratively and scientifically. The Schools were organized mainly by Cracow astronomers; every week in Cracow, the *Kowersatorium Astronomii Poza-galaktycznej* (Extragalactic Astronomy Seminar) took place and the Cracow Cosmology Group, containing several young people, was very active. The schools were thus called the Cracow Cosmology Schools and were held firstly in Opole and later on in



Fig. 2: Leaders of Cracow Cosmology Groups in various times: (top) Prof. Konrad Rudnicki (1926–2013), Prof. Andrzej Zięba (1929–1986), (bottom) Prof. Michał Heller(1936), Prof. Marek Demiański(1939).

Cracow itself. Always they were recognized and supported by the Polish Astronomical Society.

Each school was devoted to a different subject and this subject was broadly discussed by the lecturers. The main idea was to select a specific problem, and learn as much as possible about the subject while also presenting to the participants a broad overview of it. Therefore these meetings were called schools, moreover such was the tradition of the Polish Astronomical Society.

Furthermore, members of the Cracow Cosmological Group and students had the opportunity to discuss problems with the lecturers. For several participants these were the first steps in their professional careers and, as stated by them, very important. The first participants came from rather less-well established centers; later on from all of them, including Warsaw.

The School was also supported by several astronomers, who discussed numerous problems connected with the schools, for example Prof. Włodzimierz Zonn, Prof. Wilhelmina Iwanowska, Prof. Stefan Piotrowski and of course the then-President of the Polish Astronomical Society Prof. Jerzy Stodólkiewicz. (Fig.3)

Due to the political background, it was decided that this would be a good place



Fig. 3: (top) Prof. Włodzimierz Zonn (1905–1975), Prof. Stefan Piotrowski (1910–1985), (bottom) Prof. Wilhelmina Iwanowska (1905–1999), Prof. Jerzy Stodórkiewicz(1933–1988)

and time to organize international meetings. Poland was easy to reach from the West, and also accessible for Russian colleagues. In 1970, the first international school was held in Jodłowy Dwór near Kielce. The Schools were organized up to to 1990; all believed such meetings were needed for Polish astronomers. The lectures were published in *Acta Cosmologica*, and special books in the Springer series *Lecture Notes in Physics*: no. 109, *Physics of the Expanding Universe* (ed. M. Demiański), and no. 332, *Morphological Cosmology* (eds. P. Flin and H.W. Duerbeek).

After a break of some years, the first Kielce Cosmology School was organized in 2015. The main idea was to present students with different subjects, allowing quick acquaintance with various problems and help in eventual choosing of their subjects of further study. Discussions of the students with the lecturers was also one of the aims. The lectures were also later published (Publ. PAS vol. 2, eds. Biernacka, Bajan, Stachowski & Flin).

Acknowledgements. The photos are from Wikipedia and two from *Astronomia Nova*.