

Cosmic rays section of the Department of Physics  
of the "Faculdade de Filosofia, Ciências e Letras"  
of the University of S. Paulo.

The cosmic rays research in the Department was started by Prof. Gleb Wataghin more than ten years ago. Experimental and theoretical work on cosmic rays went on since then till today practically without interruption. Many assistants worked under the orientation of Prof. G. Wataghin.

Some of the early results of the section are: discovery of penetrating showers (1), discovery and first measurement of the altitude variation of penetrating showers (2), theory of multiple production (3).

In 1948 the researchers who are now working in the Cosmic rays section, H. A. Meyer, G. Schwachheim and A. Wataghin began doing research in cosmic rays under the orientation of Prof. G. Wataghin. One of the works (4) published by the group in that year and in the following one is a study of the dependence of local production on atomic number of producer (5). Cited in reference (1).

In the end of 1949 Prof. G. Wataghin left the University of S. Paulo to assume the direction of the Department of Physics of the University of Turin, in Italy. The three assistants listed above continued the work of Prof. G. Wataghin after he left. The results of their research work in 1950 are published in The Physical Review and in the Academia Brasileira de Ciências (2). The group built almost all the apparatus they use in the experiments (Rossi circuits, scalars, powers, G.M. counters, anticoincidences circuits, etc.). Some students are helping permanently the section and learning the techniques related. The group is now doing an experiment devised to obtain direct evidence of multiple production.

Unesco has put at the disposal of the group part of the high altitude station of Morococha, in Peru. Further studies on multiple production and studies on the structure of extensive showers will be made there. Plans were also made for a hodoscope, and the construction has already started.