



12. Dr H. Palka together with Prof. R. Sosnowski from the Institute of Nuclear Problems, Warsaw
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"Participation in the DELPHI Experiment".
13. Prof. A. Eskreys and Prof. K. Rybicki together with Prof. D. Kisieleska from the Academy of Mining and Metallurgy and Prof. J. Zakrzewski from the Warsaw University
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"Investigation of Electron-Proton Interactions in the ZEUS and H1 Experiments at HERA, Hamburg".

B. From the German-Polish Foundation

1. Prof. A. Eskreys and Prof. K. Rybicki, together with Prof. D. Kisieleska of the Academy of Mining and Metallurgy, Cracow, and Prof. J. Zakrzewski of the Warsaw University
Grant No 506/92, 1993-95
"Experiments ZEUS and H1 at the HERA Collider in DESY".
2. Prof. J. Bartke, together with Prof. E. Skrzypczak of Warsaw University
Grant No 565/93/LN, 1993-95
"Experiment NA49 with Ultrarelativistic Heavy Ions at the CERN SPS".

C. From other sources

1. British Council/KBN
No WAR/992/012, 1994, Dr Z. Hajduk
Personnel exchange.
2. French-Polish Convention IN2P3
 - a) No 72, LAPP-Annecy 1994, Prof. S. Jadach
 - b) No 89-54, LAL Orsay 1994, Dr G. Nowak
 - c) No 92-66, LPN Univ. Nantes, 1994, Prof. J. Bartke together with Prof. J. Petykiewicz from Warsaw Technical University
 - d) No 92-70, CRN Strasbourg, 1994, Dr G. Polok
 - e) No 94-CS3, CRN Strasbourg, 1994, Dr G. Polok
3. Deutsche Forschungsgemeinschaft DFG 436 POL 173 193 S, 1994, Prof. M. Jeżabek together with Prof. J.M. Kühn from the Karlsruhe University.

OVERVIEW:

The Department originated from a group of cosmic ray and high energy physicists created by the late Prof. M. Mięśowicz in the early fifties. This group consisted of people originally employed and housed at the Academy of Mining and Metallurgy. In 1955 some of them were transferred to the so-called Cracow Branch of the High Energy Physics Department of the Institute of Nuclear Studies in Warsaw, which rapidly increased in number and in 1970 became a Department in the Institute of Nuclear Physics in Cracow. The Department is located in a separate building at the campus of the Academy of Mining and Metallurgy, which facilitates the close collaboration with the research groups from the latter as well as with the theorists from the Jagellonian University. Joint weekly seminars represent a more than 30-years old tradition of this high energy physics community, where the theorists from the Department of Theoretical

Physics of our Institute also play an important role. An important part of the activities of the Department is teaching and training of students from the academic community in Cracow on the M.Sc. and Ph.D. level.

Joint research, teaching and academic training in high energy physics are carried out within the M. Mięśowicz Inter-Institute Centre for High Energy Physics, which was formed by an agreement between the Academy of Mining and Metallurgy, the Jagellonian University and our Institute to honour the late Prof. Marian Mięśowicz, the founder and leader of the high energy physics community in Cracow, as well as to formalize and facilitate the collaboration between the participants from the above-mentioned institutions. Thus in addition to the staff of our department listed above, several task teams working on some projects such as DELPHI, H1, ZEUS, and the future ATLAS, and PHOBOS experiments include people from other departments of our Institute and other institutions forming the M. Mięśowicz Centre for High Energy Physics.

In 1994, the research in the Department continued to cover a variety of problems of experimental and theoretical high energy elementary particle physics: hadronic and leptonic interactions with nucleons and nuclei (mainly characteristics of particle production, including heavy quark physics), e^+e^- interactions and tests of the Standard Model (also evaluation of radiative corrections), ultrarelativistic heavy ion interactions and search for the quark-gluon plasma, as well as spectra, composition and interactions of high energy cosmic ray particles. Research on detectors and development of apparatus for high energy physics experiments at future accelerators such as LHC or RHIC were also carried out.

The experiments in which the Department participates are mainly carried out within the framework of large international collaborations formed at the leading laboratories where large accelerators have been or will be constructed: the European Laboratory for Nuclear Research CERN in Geneva, DESY in Hamburg, Brookhaven National Laboratory, and Fermilab, Batavia in the USA. In addition in 1994 our Department joined the D0 Collaboration at the TEVATRON in Fermilab and the BELLE Collaboration at KEK. In 1994 this work brought the publication of further very interesting results from the e^+e^- experiment DELPHI at CERN and gave new physics results from the e^-p experiments H1 and ZEUS at DESY, the μp E665 experiment in Fermilab and important results on heavy ion collisions from BNL and CERN. Some of these can be found by the reader in the following pages together with interesting results obtained in other experiments and by our Theory Group.

It should be pointed out that our research would be practically impossible without the financial support of the State Committee for Scientific Research in Poland, the German-Polish Foundation and last not least the generous help of DESY - Hamburg which for several years has been funding most of the per-diem expenses of our staff and students in Hamburg as well as the purchase of computer equipment. We have also been helped by other institutions, such as CERN, Fermilab, KEK, MIT, and MPI-Munich. Their support is gratefully acknowledged.



Prof. T. Coghén