

## D0 Experiment at TEVATRON

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The D0 detector underwent a major upgrade in order to handle higher luminosity that will be provided by Tevatron in the Run II period and to improve precision of the event reconstruction and triggering for the rare processes (e.g. top production). Kraków was involved in the implementation of a completely new component of the D0 detector, the Silicon Multistrip Tracker (SMT). Our responsibilities were: development and maintenance of software for calibration and online monitoring. We contributed to the work of the D0 Run II Monte-Carlo Group and Run II Algorithm Group. In March 2001 RUN II started. Before the physics runs several tests were done with new detector components of. The Monte-Carlo Group concentrated on the analysis of the tests, which resulted in optimization and tune-up of the simulation programs. Huge amount of data collected by the D0 experiment needs sufficiently large computational power for reconstruction. The Kraków group was involved in preparation of a PC Farm which was used for data processing and Monte Carlo generation. The main task was to design and implement an automatic system to submit and process the collected data. It includes: WWW graphical interface, database access functions and scripts to distribute and control reconstruction jobs over the Farm.

## PP2PP: Elastic pp scattering at RHIC



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The whole year 2001 was devoted to preparations to the engineering run in January 2002. Four Roman Pot stations were assembled and installed in the RHIC tunnel at the distance of 57 and 60 meters away from the interaction point. The trigger logic and data acquisition chains were tested. During the run, two stations will be equipped with the silicon strip detectors. The engineering run is foreseen as a main test of all the experiment's components. It is planned to collect the data for the center-of-mass energy of 200 GeV and the four-momentum transfer squared from 0.005 to 0.015 GeV<sup>2</sup>.

### GRANTS:

#### Grants from The State Committee for Scientific Research:

1. *Prof. J. Figiel* – grant No: 2 P03B 046 16,  
“ZEUS Experiment: Physics Analysis, Maintenance of the Present and Construction of the New Luminosity Monitor”.

#### Other Grants:

1. *Prof. A. Eskreys* – Technical grant No: 620/E-77/SPUB-M/DESY/P03/DZ 247/2000-2002,  
“Study of Electron-Proton Interactions in ZEUS and H1 Experiments”;
2. *Prof. J. Figiel* – Ph.D. supervisor's grant No: 5 P03B 087 20,  
“The Measurements of the Differential Cross Sections in Diffractive Photoproduction Vector Mezsns at High  $-t$  in ZEUS Experiment at HERA”.