A. ANNUAL REPORT

1. Achievement of Outcomes

(See the forms below)

2. Project Coordination

2.1. The currently used day to day management of the JEP proved to be efficient in the process of the JEP outcomes realization. Monthly gatherings conducted by the Coordinator allow for a flexible control on the project run. Unfortunately, one of the associate coordinators prof. Krzysztof Stempak has had to resign from his function because he had moved to another university.

2.2. Two additional persons have become active in the day to day methodology of the JEP supervision, prof. Ewa Damek (Mathematical Institute) and dr Jerzy Marcinkowski (Institute of Informatics).

2.3. We have not encountered any unforseen problems.

3. Functioning of the Network

3.1 The most satisfactory contacts inside the network we happened to have with Lund University (prof. S. Asmussen), University of Ulm (prof. V. Schmidt), Hamburg University (prof. D. Pfeifer) and University of Copenhagen (prof. N. Jones). We have been supported by them in the decision making process of introducing new specializations. However, also other universities of this network (e.g. Orsay, Munich) will be active during the next year.

4. Activities and Outcomes

4.1. No institutional changes were planned. Two new study (on the bachelor level) specializations were approved by the Faculty, and two additional specializations are planned to be initiated.

4.2. The specializations "Application of Mathematics to Economy and Actuaries" and "Mathematics and Computer Science" will be launched in February 1999, the bachelor (licencjat) degree program "Application of Mathematics to Natural Sciences-Biostatistics" will be launched in February 2000. The course programs and syllabuses of these curricula have not yet been completed. We have compact versions of courses at our disposal. However, a substantial number of courses in mathematical economy, actuaries and computer science have been already available at our Institute for some time, either as obligatory or optional ones. Therefore, there is a number of professors at our Institute who can modify and teach them and at the same time ellaborate detailed syllabuses. This seems to be the most efficient way of introducing new courses.

The study "Application of Mathematics to Natural Sciences-Biostatistics" will be completely new at our Faculty, so it still needs to be disscused and worked out.

The first semester of "Information Technology" specialization will be launched in October 1999 for about 60 students. The corresponding syllabuses still need to be worked out in detail.

The new specialized courses were recognized at the level of faculty. The number of students studying "Application of Mathematics to Economy and Actuaries" and "Mathematics and Computer Science" will be about 100. They will start their specializations on the forth semester of their three years bachelor (licencjat) study. About 200 freshmen students are already now taught according to new syllabuses of calculus and linear algebra. All the courses at our Institute could be delivered in English.

4.3. The new teaching materials obtained from the partner universities have been adapted to our needs, and translated (lecture programs, exercises, computer worksheets and programs), they have proved to be useful. Some of the lecturers of our Faculty have been motivated to prepare lecture notes in Polish.

4.4. We planned a retraining visit for a member of our academic staff (a course in statistical software, outcome III) which was postponed and planned for the next year. However, we arranged a training of statistical software for two members of our academic staff during their visit to Lund. Only two candidates fulfilled necessary requirements for such a visit (English, education in statistics, and some experience in computers and software), no selection procedure was needed.

4.5. No student mobility was planned in the Revised Budget 1997/98.

4.6 The equipment purchased consist of computers (two servers plus 38 personal computers of type PC AMD K6 266MHZ, 3.2 GB HD, CD with 17" color monitors CTX) a heavy duty printer and necessary items to build a local area network. This equipment is appropriate to run Linux (Unix) and Windows 98 systems and to use packages such as Statistica, Mathematica, Maple, Microsoft Office. The new laboratory will be maintained from the funds of the Mathematical Institute.

However very recently installed, this laboratory has already been used to run some introductionary courses in informatics for freshman. A new plan of courses for all specializations is under construction using experiences gathered by the mobility grantholders. It will be an essential part of new curricula realized in the outcome III.

5. Conclusions

5.1 The key success in the realization of the Revised Budget 1997/98 is the creation of a new statistical laboratory (new rooms, instalations, furniture paid from other sources) equipped with two servers and 38 personal computers connected into a LAN (operating under Linux and Windows 98), which constitutes a sound technical base for new teaching programs.

Another success is the development of a new approach to the process of teaching mathematics at our Institute. Up to now three master degree programs have been in process at our Institute: pure mathematics, probability and statistics, mathematics for future teachers. All the material taught by us has been too abstract for most of the students. Only the minority of students interested in pure theory have been in a position to take advantage of their study. In recent years we attracted more and more students not very much interested in learning abstract mathematics. On the contrary they have been interested in studying tools applicable to various fields, or in taking computer courses. Therefore, we have started the process of restructuring our courses to meet their expectations. We have managed to convince most of our faculty to this opinion and our Institute have entered the way of teaching of mathematics which satisfies students' needs and is more adequate to the job market in Poland. In February 1999 we launch two mentioned above new bachelor (licencjat) degree programs in applied mathematics which have been chosen by 100 out of 150 students beginning to specialize.

We consider also a success the organizational improvements in teaching basic calculus, linear algebra and in testing students in freshmen courses. Those courses are taught on two levels: elementary and advanced, moreover the levels of both of them have been now better adjusted to the low educational standards of highschools. (Currently, highschool graduates as far as mathematics is concerned suffer from the last educational reform in Poland.)

We have been succesful in preparation of the basic rules of the credit points system which will start working from February 1999.

5.2 A lot of help from prof. Asmussen (Lund), prof. V. Schmidt (Ulm) and prof. D. Pfeifer (Hamburg) has been found very gratifying.

5.3 It would be very beneficial for the JEP if the Faculty would introduce a self-assessment method of teaching quality which would be at the same time improvement oriented in order to avoid overspecialization, overloading in programs, and to stimulate stability of the quality of courses. This quality assessment method should take into account that classes (excercises) need to be led in a unified manner avoiding technical details, but instead teaching how to solve real problems. The Faculty should also improve a control scheme on the statistical laboratories and the library which should result in defining and stimulating a policy of acquiring software and books for undergraduate teaching.

6. Individual Grantholder Reports for 1997/98 mobility

(See next pages)