COSY-11: Cracow perspective

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Your Magnificence, Professor Karol Musioł,
Dear Professor Treusch, doctor honoris causa of our University,
Ladies and Gentelmen,
Dear Friends and Colleagues from COSY-11 Collaboration,

The terms COSY and COSY-11 sound familiar in Cracow. I was requested to deliver a few remarks on joint works of the COSY-11 Collaboration and Forschungszentrum Jülich from the perspective of Cracow. I think I'll meet the request best if you let me speak from my own perspective - the perspective of a researcher who has been involved in the joint works since the very beginning of the project. The history of the COSY-11 Collaboration began almost 20 years ago, in 1987, when the COSY accelerator in Jülich was still under construction. This does not mean that Cracow-Jülich Collaboration commenced only at that time. In fact, mutual links were established as early as in the 70s of the 20th century, that is when the director of the Institute of Nuclear Physics in Forschungszentrum was still Professor Mayer-Boericke.

The 70s of the 20th century was a period in which Europe was divided into parts by the - so called - iron curtain, a border guarded by soldiers equipped with machine guns. Thanks to co-operation and financing of our stays in Germany by Forschungszentrum, we, the Cracow community of physicists, could quite successfully apply for passports. Our route to Forschungszentrum led through the former German Democratic Republic, where we would receive a "special treatment" on the border pass control, to be eventually able to enter and encounter another world - a world which came to all of us, but to younger colleague in particular, as a kind of shock. We would stop staring at window shops full of all possible goods, but - of course - this was not the most important component of the encounter. We encountered really friendly people, which was just another counterproof against the official communist propaganda claiming that the West Germany is "bad". And in a short time we became friends and our scientific collaboration was simply excellent. We were given access to modern instruments and facilities. In this context, it's a proper thing to emphasise the role of Walter Oelert and his wife, Brigitte. The meetings of physicists at their home in Düren and at our homes in Cracow vitally helped to overcome former prejudices on the part of us as Polish people and on their part as German people. An important factor in this context was provided by the visits of our German colleagues to Cracow. Our meetings here provided our German friends with opportunities not only to discuss scientific matters, but also to encounter our country and the town, Cracow.

While speaking about interpersonal relationships between us, Polish people and our

friends as Germans, I do not overlook heavy burden that presses upon our two nations. However, I think that our progress in lifting that burden was an important factor of our joint work and - particularly in that era - helped to develop our scientific activities. But in my thoughts, I do not forget of physics which was and continues to be the main factor of collaboration between Kraków and Jülich. In the 70s, we carried out experiments using JULIC cyclotron beam, whilst experiments using BIG Karl and F chamber were related to interesting aspects of the classic nuclear physics. Andrzej Magiera using the results of experiments obtained in Jülich, could write his post-doctoral, that is - habilitation dissertation in Cracow, whilst Jacek Hebenstreit could develop his doctor dissertation and was awarded the doctor degree. The year 1987 was a turning point when the - so called - COSY physics began. It was in that year, that Adam Strzałkowski, Andrzej Magiera and I as the representatives of the Jagiellonian University on the one part, and Walter Oelert as the representative of Forschungszentrum Jülich as the other part, signed a covenant which provided that we would continue to collaborate in the field of physics, and that the collaboration will be based - this time - on the COSY accelerator. For this purpose, we established a special laboratory for which we designed and constructed relevant wire chambers along with other special scintillating neutron detectors, Bragg's detectors etc. I want to emphasise that physicists from Cracow have been also very active in the development of research in the field of physics. Theirs are various ideas and concepts as well as new experimental projects carried out with the use of the COSY accelerator and I think that research results of these activities are important and significant. Research results are published in the best scientific magazines, such as Physical Review Letters, Physics Letters, Nuclear Physics etc. Amongst our successes also the cycle of MESON conferences - the Workshops on Meson Production, Interaction and Decay - should be counted. These conferences held biannually in Cracow under the auspices of the Jagiellonian University and Forschungszentrum Jülich were initiated within the framework of our collaboration, and recently joined as co-organiser by Instituto Nazionale di Ficisa Nucleare (INFN) of Frascati, Italy.

Cracow and Jagiellonian University have become a centre of hadron and meson physics recognised by the international community due to publications in renowned papers and MESON conferences.

Today, about 25 physicists researchers and engineers are participating in experiments based on the COSY accelerator. The largest group of Cracow physicists is involved in the COSY-11 Collaboration. We participate in experiments carried out by GEM, COSY-13, PISA and ANKE Groups. We also enjoy excellent contacts with colleagues from the theoretical group of Forschungszentrum. Research results obtained within the framework of the collaboration with Jülich provided basis for two of our colleagues to become professors, three of us to deliver post-doctoral (that is, habilitation) dissertations, at least 15 colleagues - to submit their doctor dissertations eventually awarded academic degrees and many students to complete studies with the master degree in physics. Many colleagues who attend doctoral studies have participated and are still involved in Jülich experiments. All that also helped to enhance and extend academic teaching at the Institute of Physics of the Jagiellonian University.

Our Collaboration met with proper recognition and honours. Professor Joachim Treusch was awarded the title of the honorary doctor of the Jagiellonian University, Professor Walter Oelert was awarded the Merentibus Medal of the University and the

title of the foreign member of the Academy of Arts and Sciences. Professor Otto Schult was granted the distinction awarded by the Jagiellonian University to particularly merited persons. Concurrently, Professor Adam Strzałkowski and I were awarded Verdienstkreuz Erster Klasse des Verdienstordens der Bundesrepublik Deutschland, that is the First Class Cross of the German Republic Order of Virtue, whilst I was honoured with the Minverva-Preis Award.

I am sure that German physicists and we cultivate and develop really decent physics. Results obtained are shared successes of German physicists in general, and those from Jülich in particular, and the physicists from Poland, in particular - from Cracow. It has been at all possible due to our friendly personal relationships.

The COSY-11 epoch is going to its end. No further experiments using the COSY-11 facility will be carried out and all we need to do is to analyse remaining experimental data. And a new epoch has began - the epoch of research in physics using WASA-at-COSY detector. We are involved in experiments carried out with the use of this new detector. We believe that our research will be at least as interesting and fascinating as it has been so far. The programme of research in the field of physics covers, in particular, various experiments on breaking various symmetries, whilst its further perspective leads to antiproton physics. Physicists from Cracow have been involved in the developments since the stage of the planning of experiments on the new set of accelerators. We believe that interpersonal relations as good as they have been so far will continue to exist, which is necessary for the development of further co-operation to bring great results in hadron physics and to successfully meet scientific challenges and implement ambitious plans in the future.