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Herr
Staatssekretaer Dr. Georg Schuette
BMBF
Heinemannstrasse 2
53175 Bonn
Germany

Dear Dr. Schuette:

This letter is written on behalf of the International Union of Pure and Applied Physics (IUPAP)'s Working Group 9 (WG.9) on International Cooperation in Nuclear Physics to express great concern about the actions under consideration by the Board of Management of the Forschungszentrum Juelich(FZJ): to terminate all contributions of the Forschungszentrum Juelich to the FAIR, HESR, and PANDA projects at GSI Darmstadt by the end of 2018; to end the operation of the Cooler Synchrotron and storage ring (COSY) for the proton/deuteron EDM experiment by the end of 2019; and phase-out the Institut fuer Kernphysik (IKP) at the beginning of 2020.

The accelerator physics group at the IKP is renowned for its accomplishments first of all in developing a world-leading storage ring (COSY) for spin-polarized light ions (protons and deuterons) up to several GeV in energy and for its powerful instrumentation in the polarized ion source, in beam diagnostics, and in polarimeters. A recent significant achievement was the establishment of very long spin coherence in the COSY ring, over 10^{10} turns, by manipulating the spin of the protons in a controlled manner. This has never been accomplished in any storage ring previously. Secondly, the accelerator physics group has responsibility for the design, construction, and commissioning of the High Energy Storage Ring (HESR) at the FAIR facility now being built at GSI. The phase-out of the IKP would terminate accelerator physics with COSY and bring the HESR project into great jeopardy.

Worldwide, the various Long Range Plans for Nuclear Physics, formulated as consensus documents by the nuclear physics communities and submitted as recommendations to the governmental funding agencies, have, as a very high priority item, the study of Fundamental Symmetries as a quest for new Physics beyond the Standard Model perhaps elucidating the birth of the universe. One of the key themes is the search for electric dipole moments of electrons, neutrons, and charged particles like protons and deuterons. These are very difficult and long duration experiments requiring numerous technological innovations which lead to spin-off for high-technology companies. There are several electron and neutron EDM experiments ongoing worldwide to establish a definitive value (or at least a much improved upper limit) on an EDM. In this respect, the Forschungszentrum Juelich with COSY would potentially have a crucial role in this quest for new physics beyond the Standard Model.

One of the four approved research directions at FAIR, once it has been brought into operation, is the so called PANDA detector for antiproton experiments. The IKP has a significant stake in the construction of parts of the PANDA detector and it has been envisaged to commission parts of the detector (at least major components) at COSY. The latter certainly falls within the time line of the construction of FAIR towards its completion. Again the phase-out of the IKP and the demise of COSY will bring this into jeopardy.

It is very much hoped that the above considerations are to be given appropriate consideration in the various deliberations of the future of the IKP and COSY.

Yours sincerely,

Robert E. Tribble
Chair of IUPAP WG.9

31/03/2006

Willem T. H. van Oers
Secretary of IUPAP WG.9