Joint Institute for Nuclear Research

XI Advanced Research Workshop on High Energy Spin Physics

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Proceedings

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WELCOME ADDRESS
by JINR Vice-Director A. Sissakian

Dear Colleagues,
Ladies and Gentlemen,

It is both my honour and pleasure to welcome you on behalf of the Directorate of Joint Institute for Nuclear Research.

Twenty four years ago, in 1981, the first International Workshop on Polarization Phenomena in High Energy Physics, organized by Professor Lev Lapidus, took place in Dubna. This first conference initiated a series of Workshops which are now regularly held in this country in Dubna and Protvino between the big biannual International Symposia on Spin Physics. This gives a possibility to discuss new results that were obtained during the year.

The other very important feature of the meeting was to give opportunity of larger participation of physicists from former USSR and from Eastern Europe, for which trips to the West have been difficult due to financial (and earlier also on political and bureaucratic) reasons.

This Workshop is devoted to the memory of Professor Mikhail Petrovich Rekalo who passed away last year and whose contributions to the Spin Physics will be reviewed in special talks of Igor Sitnik.

Processes with polarized particles always have been among the most difficult and complicated themes both for experimentalists and theorists.

First, working with polarized targets, experimentalists have to "battle with" thermal chaos which tends to break the polarized order. For this one needs liquid helium temperatures. More difficulties, like depolarizing resonances, are encountered in accelerating polarized particles and in controlling a polarized beam. Second, spin effects are very perfidious: as a rule, they are strongest in kinematical regions where the process itself is the least probable.

As for the theory, I can hardly recall a case when its first prediction was correct! As a rule, it was wrong and forced theorists to think more fundamentally to repair the theory. This resulted in a deeper understanding of particle interaction dynamics. Nevertheless many puzzles such as "Why are hyperons produced so strongly polarized?" or "What is the structure of the nucleon spin?" stay yet

unsolved during decades. Many of these problems will be the subject of invited and original talks presented at this Workshop.

The present-day high-energy physics is to a large extent the physics of spin phenomena. JINR Laboratories are developing large spin programmes. They include: the study of the spin structure functions in the HERMES, first result from COMPASS experiment and recent news from RHIC-Spin programme. The spin phenomena investigations with unique polarized deuteron, neutron and proton beams carried out at JINR in the Laboratory of High Energies, and a wide range of theoretical studies on spin phenomena carried out at the Bogoliubov Laboratory of Theoretical Physics.

This Workshop is supported by Russian Foundation for Basic Research, by the International Committee of Spin Physics Symposia and, of course, by JINR. This gives the possibilities to many young scientist from Russia and other JINR Member States to participate in the Workshop.

Thanking all those who have contributed to the organization of the Workshop, I would like to express my hope that this meeting will help us to make a further advance in our research efforts in the field of spin physics and in the development of our international collaboration.

Welcome again, and wish you have a productive Workshop and a pleasant stay in Dubna.

Thank you.