

Report on the project "Fundamental interactions of fields and particles"

The project presented by Prof. Kazakov and Prof. Teryaev under the title "Fundamental interactions of fields and particles" addresses fundamental questions about the understanding of elementary particles in the framework of the Standard Model as well as in searches for physics beyond the standard model. This domain is very active at the international level and JINR has always been an outstanding laboratory in this field, competing at the highest level with European and American best universities.

The project is clearly described and its goals are quite ambitious. Knowing the previous important results obtained by the present teams of theoretical physicists, I have no doubt that the goals presented here will be successfully achieved. The long list of international cooperation as well as the previous records of the participating physicists clearly show that the teams gathered in this theme have an exceptional international recognition for their recent results.

I am particularly aware of the breakthroughs achieved by the team working in the field of QCD parton distributions, since this is my particular field of research and since I collaborated with Prof. Anikin and Prof. Teryaev a decade ago. In particular, their theoretical support of the NICA program is of utmost importance. The diversity of approaches used by the other teams on very related physics problems is an added value to their program, as well as a sign of the richness of this proposal.

In conclusion, I strongly recommend this project to be funded.



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