

JINR

Joint Institute
for
Nuclear Research



Bogoliubov Laboratory of Theoretical Physics

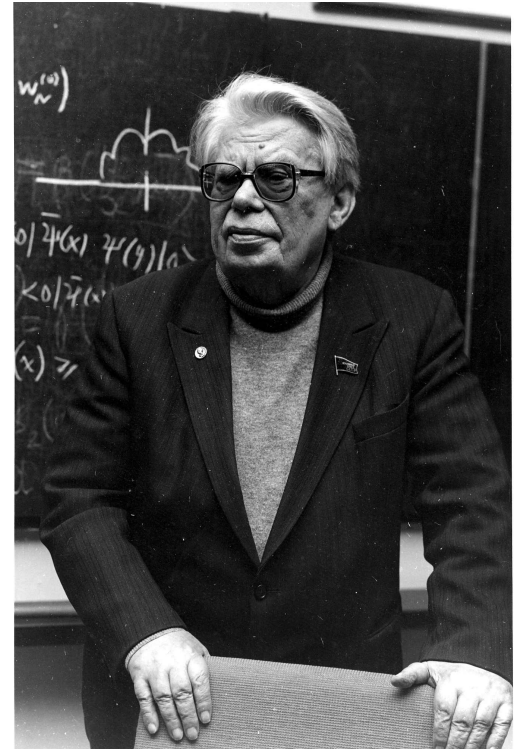


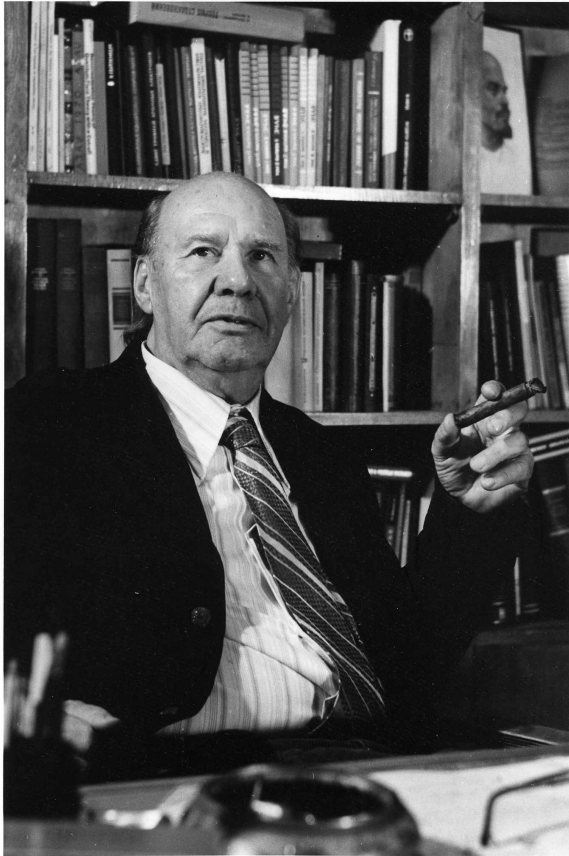
Nikolai Nikolaevich Bogoliubov (1909–1992) is a distinguished scientist in the field of physics and mathematics. His scientific activity began in Kyiv (1923–1947) and then continued in Moscow (since 1949) and Dubna (since 1956). Main scientific results in the fields:

- Nonlinear mechanics: asymptotic methods, stability theory ;
- Statistical physics: kinetic equations, quasiaverages for systems with spontaneously broken symmetries;
- Quantum statistics: microscopic theory of Bose-gas superfluidity, microscopic theory of superconductivity ;
- Quantum field theory: axiomatic scattering matrix, general renormalization theory, renormalization group theory, proof of dispersion relations;
- Elementary Particle Theory: "quark bag" model, quantum number "colour".

N.N. Bogoliubov's scientific activity began at the age of 14 –15. His major independent results were obtained when he was 20–25.

N.N. Bogoliubov's scientific activity is specified by considerable mathematical culture and directness to solution of concrete problems of natural science.





Dmitrii Ivanovich Blokhintsev (11.01. 1908 – 27.01.1979), one of the pioneers of atomic science and technology in USSR, the organizer and the first director of the JINR.

Main scientific results in the fields:

- Quantum mechanics
- Acoustics of an inhomogeneous moving medium
- Neutron physics
- Quantum field theory
- Particle physics

1954 – the scientific supervisor of creation and putting into operation of the world first atomic power station.

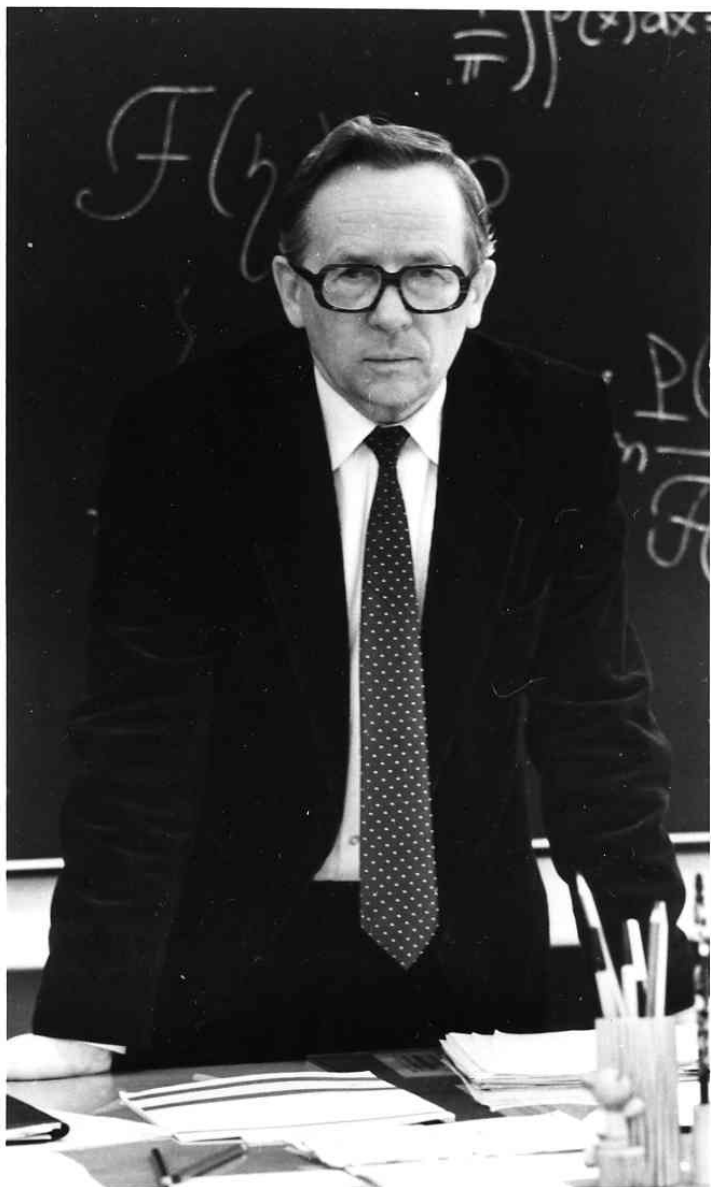
1956- 1965 – the JINR Director

1965 – 1979 – Director of Lab of Theoretical Physics



During the 80-90s, V.I. Ogievetsky with colleagues achieved essential progress in understanding the mathematical structure of supersymmetric theories.

They worked out **the harmonic superspace method** which is now widely recognized as an adequate approach to the theories with extended supersymmetry.



At the end of the fifties, at the suggestion of N.N.Bogoliubov V.G.Soloviev studied the properties of deformed nuclei in the framework of the model of independent quasiparticles. These investigations culminated at the end of the seventies in the creation of **the quasiparticle-phonon nuclear model**.

Investigations by the Soloviev's group stimulated experimental studies in nuclear spectroscopy at JINR and in Member States and are now used in analysing data.



V.G. Kadyshevsky, A.N. Sissakian, A.T.Filippov, D.V. Shirkov

Directors of BLTP during the years 1987 - 2007



Viktor V. Voronov

BLTP: Directorate

Director [Viktor V. Voronov](#)

Honorary Director [Dmitrii V. Shirkov](#)

Advisor to the JINR Directorate for Theoretical Physics [Alexander T. Filippov](#)

Deputy Director [Alexander S. Sorin](#)

Deputy Director [Vladimir A. Osipov](#)

Deputy Director [Fedor Simkovic](#)

Scientific Secretary [Sergei N. Nedelko](#)



Bogoliubov Laboratory of Theoretical Physics

Fields and Particles

D.Kazakov, O.Teryaev

Nuclear Theory

V.Voronov, A.Vdovin

Theory of Condensed Matter

*V.Priezzhev, V.Osipov,
N.Plakida,*

Modern Mathematical Physics

A.Sorin, A.Isaev

**Dubna International Advanced School
of Theoretical Physics (DIAS-TH)**

*A.Filippov, A.Sorin,
V.Voronov*

Scientific Personnel

	D	C	O	S	Total
Fields and Particles	25	24	10	12	67
Nuclear Theory	25	16	8	12	61
Theory of Condensed Matter	15	14	6	8	40
Modern Mathematical Physics	11	9	4	5	29
Total	76	53	28	37	197

Comment: D - doctor, C - candidate, O - without degree,
S - postgraduate student + student