

PHYSICS– USPEKHI

English edition of *Uspekhi Fizicheskikh Nauk*
November 2009 Volume 179 Number 11

Contents

Volume 52	P N LEBEDEV PHYSICAL INSTITUTE — 75 YEARS	
Number 11	P N Lebedev Physical Institute RAS — 75 years	1083
2009	(Joint session of the P N Lebedev Physical Institute Research Council and the Scientific session of the Physical Sciences Division of the Russian Academy of Sciences and the United Physical Society of the Russian Federation, 6 April 2009)	
Pages 1083–1190	P N Lebedev Physical Institute RAS: past, present, and future	1084
	G A Mesyats	
	Vavilov–Cherenkov radiation: its discovery and application	1099
	B M Bolotovskii	
	Toroidal ordering in crystals	1111
	Yu V Kopaev	
	Radioastron: a radio telescope many times the size of Earth. Research program	1127
	N S Kardashev	
	Cosmic ray investigations	1139
	G T Zatsepin, T M Roganova	
	Spectroscopy: from atoms to cosmic objects	1147
	A V Masalov	
	Laser frequency standards at the P N Lebedev Physical Institute	1153
	V L Velichansky, M A Gubin	
	The Pushchino Radio Astronomy Observatory of the P N Lebedev Physical Institute Astro Space Center: yesterday, today, and tomorrow	1159
	R D Dagkesamanskii	

Continued overleaf

Contents continued

METHODOLOGICAL NOTES

- Landau and modern physics** 1169
V L Pokrovsky

FROM THE HISTORY OF PHYSICS

- “The most remarkable man among the scientists”:
on the occasion of the 130th birthday of L I Mandelstam** 1177
V V Ragulsky

CONFERENCES AND SYMPOSIA

- School of Modern Astrophysics — 2009** 1185
V S Beskin

BIBLIOGRAPHY

- New books on physics and related sciences** 1188
E V Zakharova
- Physics news on the Internet** 1189
Yu N Eroshenko