

CONTENTS

Gravitation

- V.O. Soloviev. How much canonical are Ashtekar's variables?.....7
- V.O. Soloviev. Surface integrals of Poincare algebra in Ashtekar's formalism.....14
- A.F. Zakharov. Classification of bound and unbound geodesics in the Kerr metric and effective particle cross-section of a Reissner-Nordstrom black hole.....18
- V.V. Sokolov. On properties of strong gravitational field of a collapsar in gravodynamics.....26
- S.N. Sokolov. Gravitating light ball: stationary states and collapse developing...46
- V.V. Sokolov, S.V. Zharikov. Masses of quark configuration.....61
- S.N. Sokolov. Mass term in relativistic gravitation theory and asymptotics of gravitational field.....81

Cosmology and extragalactic astronomy

- B.S. Novosyadlyj, B.I. Hnatyk. Large-scale structure of the Universe and initial fluctuation spectra.....81
- B.I. Gnatyk, V.N. Lukash, B.S. Novosyadlyj. Great attractor - a new test for cosmological models.....90
- A.F. Zakharov. Gravitational lenses and catastrophe theory.....96
- V.E. Karachentseva, I.B. Vavilova. Clustering of low surface brightness dwarf galaxies. I. General properties.....98
- V.R. Amirkhanian. Primary direction of space $R.A.=14^h5$, $Dec.=50^\circ$119

Study of relativistic objects

- G.M. Beskin, S.N. Mitronova, S.I. Neizvestny, V.L. Plokhotnichenko, M.Yu. Popova, A.V. Zhuravkov, O. Benvenuto, C. Feinstein, M. Mendez. Investigation of low-mass X-ray binaries with superhigh time resolution. Detection of nonthermal optical flares from a burster MXB 1735-44.....132
- A.A. Panferov, S.N. Fabrika, L.V. Bychkova, V.Yu. Rakhimov. Analysis of Balmer lines emission and radiation non-isotropy of SS 433 jets.....136
- D.G. Arshakian, R.R. Andreasian. On distribution of separation velocities of components of extended double radio sources.....143
- G.M. Beskin, V.L. Oknyanskiy. Time delay for the gravitational

lens Q0957+561 A,B.....	150
A.V. Zhuravkov, A.A. Pimonov, V.L. Plohotnichenko. "QUANTOCHRON" - a multichannel time-to-code converter.....	159

Colloquium on SETI problems

D.O. Ishankuliev. Appearance of a coherent emission in nonequilibrium. Cosmic medium and the SETI.....	173
<u>V.F. Shvartsman</u> , G.M. Beskin, S.I. Neizvestny, V.L. Plohotnichenko, L.A. Pustil'nik. The search for optical signals of cosmic civilizations.....	178
G.M. Beskin, A.V. Sannikov. About communication between civilizations by super-supergiants retranslation.....	187