

Journal of Physics, Volume 3, No. 2, 1995, pp. 1-120.
© 1995 Kluwer Academic Publishers. Printed in Belgium.
RATAN-600 is a radio telescope with the following
parameters: diameter of the main reflector 600 m,
frequency range 1.4 GHz - 10 GHz, resolution 0.8 arcsec.
The telescope is a paraboloid and has a feed horn.
The main beam is directed at the sky and has a cone-like
shape. The beam divergence of the telescope is a cone with
an angle of 1.4 degrees. The telescope has two air
locks to exchange a primary mirror and a secondary mirror.

CONTENTS

Preface	
J. A. Stepanian, V.A. Lipovetsky, V.H. Chavushian, L.K. Erastova, S.K. Balayan. Spectral investigations of objects from the Second Byurakan Survey. Stellar objects VI.....	5
Ts.B. Georgiev, N.A. Tikhonov, B.I. Bilkina, R.G. Getov, P.D. Ne- dialkov. The precise coordinates of the supergiant and glo- bular cluster candidates of the galaxy M81.....	43
G.P. Topilskaya. Evolutionary status and chemical composition of the atmospheres of the He-weak stars.....	52
L.G. Romanenko. Relative radial velocities of visual-binary com- ponents observed on the 6 m telescope (BTA). II. ADS 10759 and ADS 12815.....	72
N.V. Bystrova. Neutral hydrogen observations of extended galactic structures.....	82
V.K. Khersonskij, A.A. Lipovka. Free-bound transitions in LiH mo- lecul.....	88
V.V. Vlasyuk. Software for reduction of spectral data obtained with panoramic detectors of the 6 m telescope.....	107
V.V. Vlasyuk. Reduction of spectral data obtained on the 1024- channel scanner of the 6 m telescope with a personal compu- ter IBM PC AT.....	118
O.V. Verkhodanov, B.L. Erukhimov, M.L. Monosov, V.N. Chernenkov, V.S. Shergin. Basic principles of flexible astronomical data processing system in Unix environment.....	132
G.A. Pinchuk, I.V. Berlizev, A.D. Dibizhev, E.K. Majorova, D.V. Shannikov. The set-up of linear feed array for the RATAN-600 radiotelescope.....	138

A.B. Berlin, V.Ya. Gol'nev, P.Ya. Ksenzenko, N.A. Nizhelskij, Yu.N. Romanenko. Peltier-cooled microwave gasfet low-noise amplifier and its application for the RATAN-600 radioteles- cope.....	153
A.B. Berlin, V.I. Lebed, A.A. Makhsiasheva, N.A. Nizhelskij, A.N. Pilipenko, G.M. Timofeeva, I.Yu. Shkliarevskij. New cryoge- nic continuum radiometers for the RATAN-600.....	161
O.V. Verkhodanov, V.B. Khaikin. Results of simulation of two- dimensional beam pattern and parameters of the RATAN-600 ra- diotelescope in comparison with the experiment.....	166