

ABSTRACTS

Abuzyarova N.F.

AREA THEOREM TYPE INEQUALITY
Abuzyarova.pdf

Abstract. A generalization of classical area principle for subdomains on compact Riemann surfaces is obtained.

Keywords: univalent functions, the area theorem, Riemann surfaces.

Bekmaganbetov K.A.

ABOUT ORDER OF APPROXIMATION OF BESOV CLASSES IN METRIC OF ANISOTROPIC
LORENTZ SPACES
Bekmaganbetov.pdf

Abstract. In this work the sharp estimate of the approximation order of Besov classes in metrics of anisotropic Lorentz spaces is obtained.

Keywords: Besov spaces, Lorentz spaces, the order of approximation, cross.

Gaisin A.M., Yusupova N.N.

BEHAVIOUR OF THE SUM OF DIRICHLET SERIES WITH A GIVEN MAJORANT
OF A GROWTH ON CURVES
Gaisin.pdf

Abstract. Classes of Dirichlet series defined by convex majorants of a growth are investigated here. There are received precise estimations of a growth and increasing for functions of this classes.

Keywords: Dirichlet series, maximal member, the convex majorant of a growth.

Kalyakin L.A.

AVERAGING METHOD FOR THE PROBLEMS ON ASYMPTOTICS AT INFINITY
Kalyakin.pdf

Abstract. A nonlinear non-autonomous system of two ordinary differential equations is considered. It is assumed that the equations corresponding to the principal part in the asymptotics at infinity are written in the action–angle variable. In the case where the lower terms in the equation periodically depend on the angle the asymptotic expansion at infinity of two parametric family of solutions is constructed.

Keywords: nonlinear differential equations, asymptotics, averaging.

Krivosheyev A.S.

THE INVARIANT SUBSPACES IN CONVEX DOMAINS IN \mathbb{C}^n
 Krivosheyev.pdf

Abstract. It is studied the invariant subspaces of functions spaces relatively differential operation, this functions is holomorphic in convex domains in \mathbb{C}^n . It is received the criterion of holomorphic continuation of functions in an arbitrary closed main invariant subspaces. This spaces admit a spectrum synthesis in an arbitrary limited convex domains.

Keywords: invariant subspaces, analytic continuation, entire function, convolution operator.

Musin I.Kh., Fedotova P.V.

ON A CLASS OF INFINITELY DIFFERENTIABLE FUNCTIONS ON UNBOUNDED CONVEX SET
 IN \mathbb{R}^n ADMITTING HOLOMORPHIC CONTINUATION IN \mathbb{C}^n
 Musin.pdf

Abstract. A subspace of the Schwartz space of rapidly decreasing functions on closed convex unbounded set in \mathbb{R}^n , admitting holomorphic extension in \mathbb{C}^n , is studied. The problem of description of the dual space for this space in terms of the Fourier-Laplace transform is considered.

Keywords: tube domain, tempered distributions, the Laplace transform of functionals, $\bar{\partial}$ -problem.

D. Levi, R.I. Yamilov

ON A NONLINEAR INTEGRABLE DIFFERENCE EQUATION ON THE SQUARE
 Yamilov.pdf

Abstract. We present a nonlinear partial difference equation defined on a square which is obtained by combining the Miura transformations between the Volterra and the modified Volterra differential-difference equations. This equation is not symmetric with respect to the exchange of the two discrete variables. Its integrability is proved by constructing its Lax pair.

Keywords: nonlinear integrable difference equation, Lax pair, Miura transformation, Volterra equation.