Notations of the seminar "Superslow Processes". N.4. Volgograd: Izd-vo VolGU. 2009.

Contents

1. A.A. Klyachin, On uniform convergence to average solution. P. 8-13.

Abstract. In the paper we give convergence estimate of functional sequence constructed by average to solution of minimal surface equation under the condition that mean curvature operator of this functions convergences to zero.

2. V.M. Miklyukov, Embedding theorems for Sobolev weight classes. P. 14-32.

Abstract. We introduce concepts of weight moduli and prove some criterions of embedding theorems of $\operatorname{Sob}_{\sigma}^{l,p}$ in L^q and C^{α} .

3. Yu.Yu. Vetyutnev, Law as structured time. P. 33-36.

Abstract. Time is examined as the special kind of divisible and measurable uniform social rhythm, coming instead of ritual synchronization. It is marked that the "natural" calendar time is politically caused and legally ratified.

4. V.M. Miklyukov, Conditions of differentiability almost everywhere of functions of Sobolev weight classes. P. 37-50.

Abstract. We consider the problem of differentiability almost everywhere of functions of Sobolev weight classes.

5. V.M. Miklyukov, Function approximation near singularity. P. 51-82.

Abstract. We consider the problem of function approximation near singularities, bring conditions of total differential existence at a point for functions with Sobolev generalized derivatives.

6. V.A. Klyachin, Differential relations for girth function. P. 83-92.

Abstract. A girth function is a main object of investigation in this paper. This function is used for investigations of geometric properties of solutions of quasilineare elliptic equations. In present article we suggest tht method for using girth functions for solutions of hyperbolic equations.

7. A.I. Makarov, Overindividual memory as sociokultural integrator. P. 93-98.

Abstract. There consider the question on functions of overindividual memory in processes of formation of human associations.

8. V.A. Klyachin, On some property of wave equation. P. 99-103.

Abstract. We proof compare theorem for hyperbolic operator and present its application to the investigation of solutions of wave equation.

9. D.V. Grushevsky, Hierarchies and networks in the economic area. P. 104-111.

Abstract. The aptitude of farming subjects for spatial self-organization in the context of regional psychology, culture, mental purposes and stereotypes of economic behaviour is considired. Their aptitude for taking independent decisions in the frame of hierarchies and networks is analyzed.

10. V.V. Tarakanov, Economic consequences of acceptance of the Federal Act "About independent establishments" for higher education institutions. P. 112-125.

Abstract. Prospects of transformation of the state high schools in independent establishments are analyzed.

11. V.A. Klyachin, Comparison principle for harmonic functions and its applications. P. 126-132.

Abstract. We prove the comparison principle for solutions for quasilinear elliptic equations and give some examples for applications. In particular, we obtain convexity for the girth functions for harmonic functions.

12. V.M. Miklyukov, Differentiability conditions at a point of almost quasiconformal mappings. P. 133-146.

Abstract. We bring some differentiability conditions at a point of almost quasiconformal mappings.

13. D.M. Tugan-Baranovsky, M.I. Tugan-Baranovsky's theory of cooperation. P. 147-164.

Abstract. The main point of M.I. Tugan-Baranovsky's of conception of cooperative system was the following: cooperative system would develop in the country, but it would only result in strengthening individual farming. The Soviet practice was exactly the opposite and led to the decline of the Russian farming.

14. A.M. Zybulin, A.V. Nikishova, Multiagent simulation of the system of information safery. P. 165-168.

Abstract. A model of the system of information safery is described.

15. V.A. Klyachin, On homeomorphisms which hold orientation of triangles. P. 169-182.

Abstract. We consider conditions under which the triangulation is transformed into triangulation. This problem is arised in the problems of construction of grids.

16. V.P. Danilova, Evolution of the distance expression form of communicators. P. 183-189.

Abstract. In the course of 2200 years the gap between communicators has become deepes.

17. V.A. Gorelkin, Strategics and tactics of Nazi propaganda in Eastern front (1941-1945). P. 190-197.

Abstract. Author studies strategics and tactics of Nazi propaganda in Eastern front during period of 1941 – 1945 years.

18. A.A. Klyachin, Approximation of solution of the minimal surface equation by piecewise polinomial functions. P. 198-206.

Abstract. In this article we show that piecewise polinomial approximation of solutions of the minimal surface equation have uniformly bounded gradient under specific tendency of the triangulation mesh to zero. Corollary of obtained estimate is uniform convergence to the faithful solution of the minimal surface equation.

19. A.Yu. Igumnov, A characteristic of triangle nondegeneracy. P. 207-219.

Abstract. A sufficient indication of triangle nondegeneracy is described.

20. A.I. Pigalev, Variants of the Russia future in the light of the Economics crises dynamics. P. 220-229.

Abstract. Author considers the following questions: control in the global historical process, long-term scenarios, old scenarios for new Russia.

21. V.M. Miklyukov, On isothermal coordinates of surfaces with singularities. P. 230-240.

Abstract. We consider the problem of existence and uniqueness isothermal coordinates for surfaces with singularities.