"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041232

Churavnenii azh-BYh-6; 6-1,0,4,8, L., Uchen. zap. ped, in-ta, 22 (1739), 141, 146.

S0: Eathematics in the USSR, 1 17-1947
 edited by Jurosh, A.G.,
 Earluchewich, A.L.,
 R shevskiy, p. 1.
 koccow-Leningrad, 1942

"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041232

Oplotnostyakh tselykh tochek chisto veshchestvonnych obl.stey 4-ge peryadka s razlichenni gruppani Galua. IAE, ser. katem., L (1940), 133.

So: Mathematics in the USSR, 197-1/47 edited by Juresh, A.G., Larhushevich, A.L., Reshevski, I.E., Reshevski, I.E., Reshevski, I.E., Loscow-Leningrad, 1946

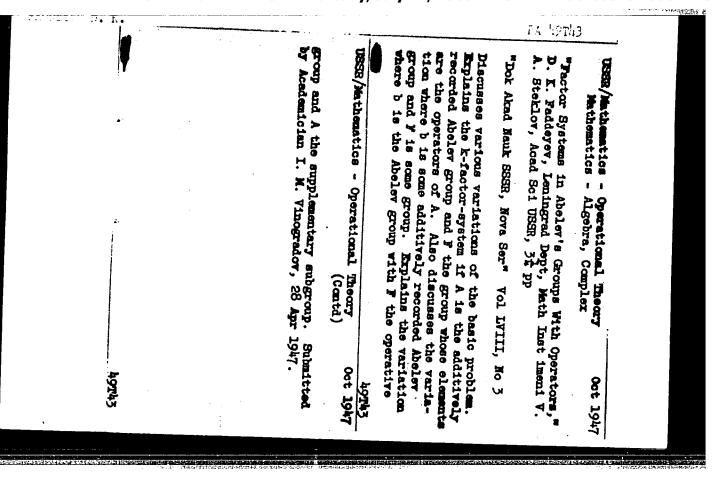
FADDEYEV, D. K.

Construction of Fields of Almebraical Numbers Whose Galois Group is a Group of Quaternion Units, Doklady AN SSSR, 47, No. 6, 1945.

Leningrad Branch, Mathematics Inst. im V. A. Steklov, AS USSR

Presented: 1944

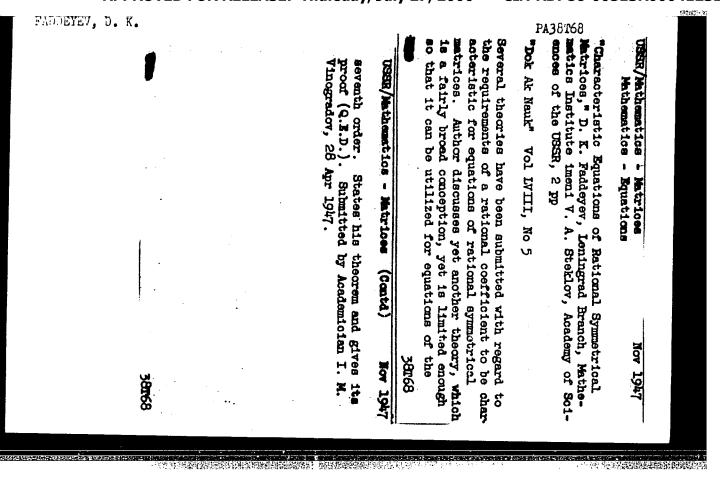
On a Problem of Analytical Geometry, Doklady AN SSSR, 47, No. 8, 1945.



"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00041232 TRUUSIET, D. K. E "Structure of the phq Series Group," D. K. Faddeyev, Laningrad Branch, Mathematical Institute imeni V. A. 30101 UBER/Mathematics - Series Steklov, Academy of Sciences of the USER, 2 pp fulfill the requirements: $q \equiv l(p), p \langle p, \overline{r} \rangle \leqslant n - 1$, where f is the smallest of the positive numbers so that $p^{f} \equiv l(q)$. It is evident that only the final values for the simple numbers p,q, will fulfill the has neither a normal denominator of the p^n series, nor a normal denominator of the q series, then p, q fulfill the requirements: $q = 1(p), p \frac{p}{(p,p)} \leqslant n-1$, conditions for the given n, so that even the group of Discusses following theorem: If the prog series group "Dok Ak Nauk" Vol IVIII, No 4 Vinogradov 28 Apr 1947. where n is fixed. Submitted by Academician I. M. denominators, will conform only to the final number the pro series, which does not have strong normal USCIS/Mathematics -Series (Contd) MOV 1947 Nov 1947 **191185**

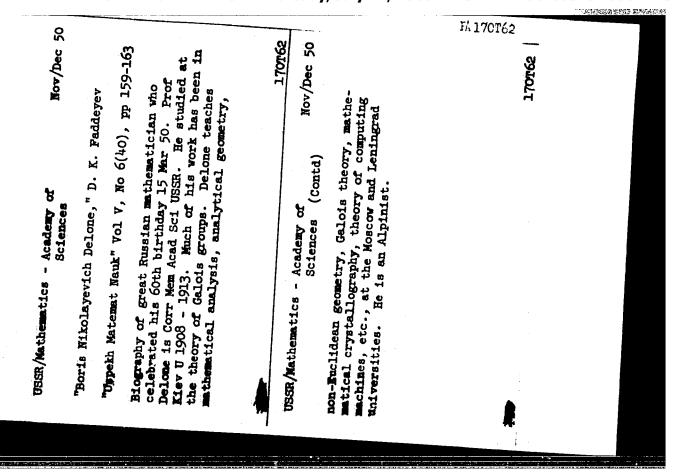
"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041232



"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041232



- 1. FADDEYEV, D. K.
- 2. USSR (600)
- 4. Science
- 7. Algebra. Textbook for teachers of seventh grade. Pt. I. Leningrad, Uchpedgiz, 1951

9. Monthly List of Russian Accessions, Library of Congress, January, 1953, Unclassified.

*Faddeev, D. K. Simple algebras over a field of algebraic functions of one variable. Trudy Mat. Inst. Steklov., v. 38, pp. 321-344. Izdat. Akad. Nauk SSSR, Moscow,

1951. (Russian) 20 rubles. The constant field k_0 for the algebraic functions is always an algebraic number field. The problem is to classify simple algebras over $k = k_0(x, y)$, where x is an indeterminate and y is algebraic over $k_0(x)$. Any simple algebra over k_0 can be lifted up to one over k; the result is called a numerical algebra. The principle of classification is the following: two algebras over k are similar in the wide sense if one is similar in the ordinary sense to the product of the other by a numerical algebra.

After some expository material, the author takes up the local theory. Let A be a central division algebra over the field $k_0(\pi)$ of formal power series in π . The center Z of the inertial algebra turns out to be cyclic over k_0 . If II is an element of minimal positive value in A, then the inner automorphism by Π induces an automorphism f of Z. The "cyclic pair" (Z, f) is shown to be a complete set of invariants for A under similarity in the wide sense. The theory extends to the simple case.

divisor p of k we have a local algebra A_p over the local field k_p , which is a field of power series over the inertial field k_1 of p. The algebra A_p has as its invariant the cyclic pair defined above, and these cyclic pairs satisfy a product formula $IIN_{p,p}(Z_p) = 1$

Let now A be a global central simple algebra. For every

 $\prod_{p} N_{k_1/k_p}(Z_p, \zeta_p) = 1.$

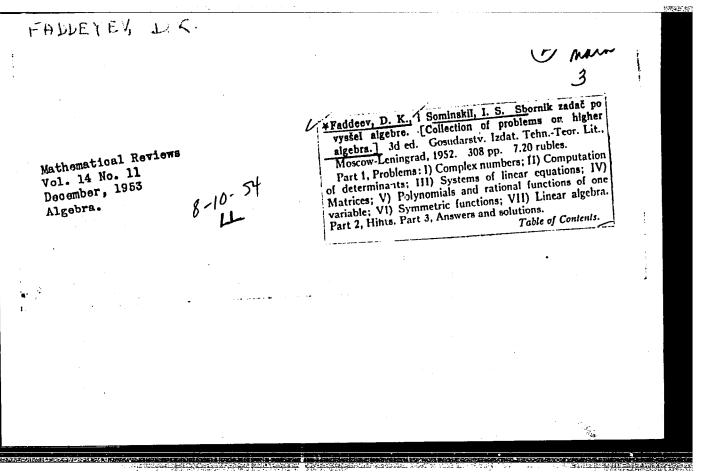
The definition of the norm and product of cyclic pairs is too lengthy to reproduce here; it uses Galois theory, character groups and the transfer (Verlagerung) of a group into a subgroup. Finally, k is specialized to the field $k_0(x)$ of rational functions, and it is shown that the local invariants of A characterize A up to similarity in the wide sense. Moreover there exists an algebra for any set of invariants satisfying the product formula.

1. Kaplansky.

A STATE OF THE STA

Source: Mathematical Reviews,

Vol 13 No.10



FADDEYEV, D.K

Faddeev, D. K. On the theory of homology in groups.

Izvestiya Akad. Nauk SSSR. Ser. Mat. 16, 17-22 (1952).

(Russian)

The author studies a relation between the cohomology groups of a group G, and those of a subgroup H. Let G operate on the right of the additive group A, and let i be the additive group of functions from the set $\{\rho\}$ of right cosets of H in G to A, with G operating by $f^*(\rho) = [f(\rho x^{-1})]^*$. Theorem: $H_*(G, i) \cong H_*(H, A)$. The isomorphism is derived from the chain map η (the y_i run through H; $\rho_0 = H$): $\eta F(y_1, \dots, y_n) = F(y_1, \dots, y_n)(\rho_0)$. The proof utilizes a number of other groups: $C_n(G, H, A)$ is the group of H-homogeneous cochains (on G with values in A):

$$f(x_1y_1, \dots, x_ny) = f(x_1, \dots, x_n)$$

for $y \in H$; there is an explicit isomorphism between $C_n(G, i)$ (non-homogeneous cochains) and $C_{n+1}(G, H, A)$, commuting with coboundary. It remains to prove that

$$H_{n+1}(G, H, A) \approx H_{n+1}(H, H, A),$$

the isomorphism induced by restriction of the functions to H. This is shown by induction; an important role is played by the theorem that for $n \ge 2$ all $H_*(G, H, b) = 0$, where b is the group of all functions from H to A, with H operating by $f^{*}(y) = [f(yy_1^{-1})]^{n_1}$. Reviewer's note: An interpretation of the author's result can be obtained by noting that the Eilenberg-MacLane space of H is a covering space of that of G.

H. Samelson (Ann Arbor, Mich.).

My Lot

Source: Mathematical Reviews,

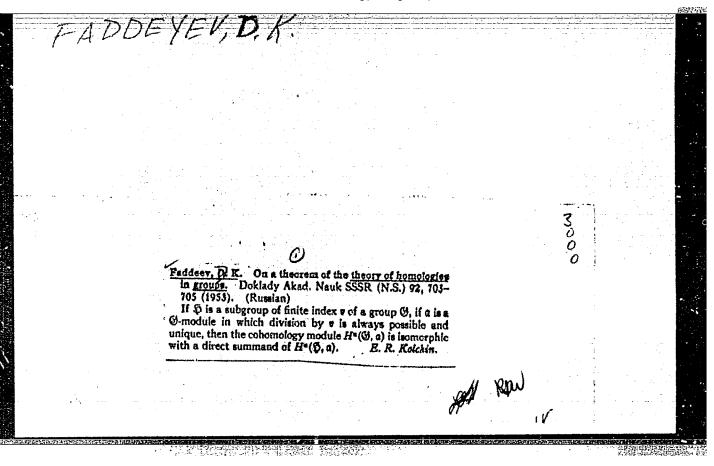
Vol 13 No. o

FADDEYFY, D. K., Prof.

Chebyshev, P. L.

"New collection of L. L. Chebyshev's writings." Vest. AN SSTR, 22, No. 5, 1952.

Monthly List of Russian Accessions. Library of Congress, October 1952. Unclassified.



TADDEVIV. D.F.; SOMINSKIT, I.S.; BARKOVSKIY, I.V., redaktor; MAKRUSHIN, V.A., tekhnicheskiy redaktor

[Algebra. Pt.2. Manual for secondary school teachers] Algebra.

Chast' II. Posobie dlia uchitelei srednei shkoly. Lehingrad, Gos.

uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1954.

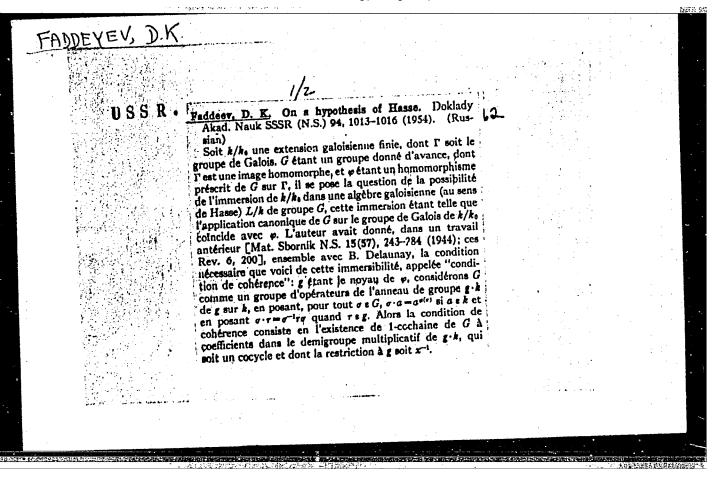
286 p.

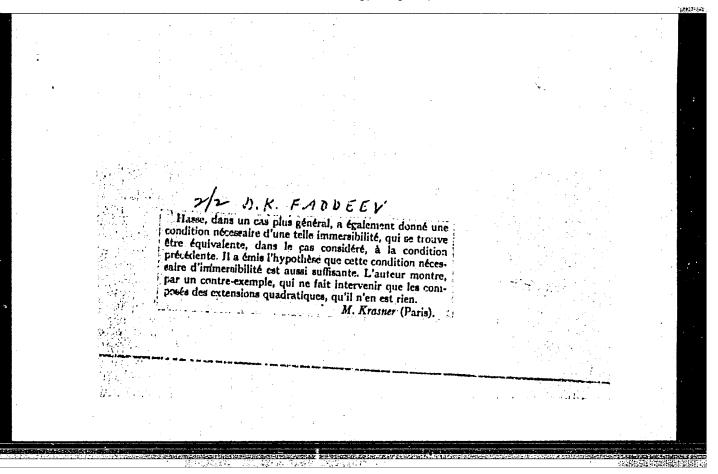
(Algebra—Study and teaching)

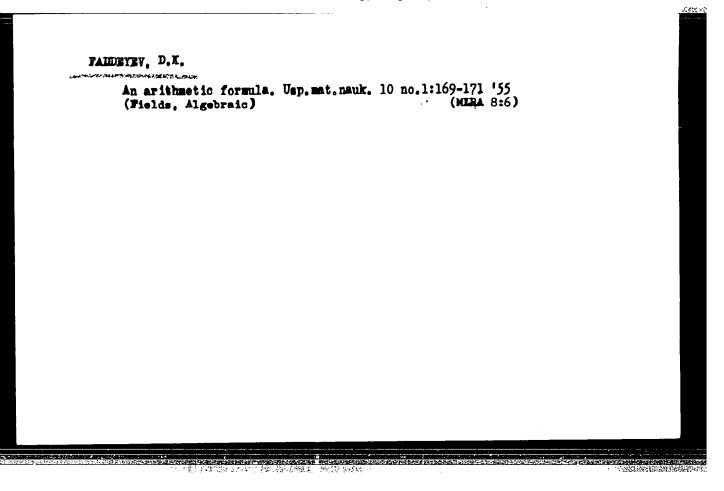
FADDRIEV, D.I.; SOMINSKIY, I.S.

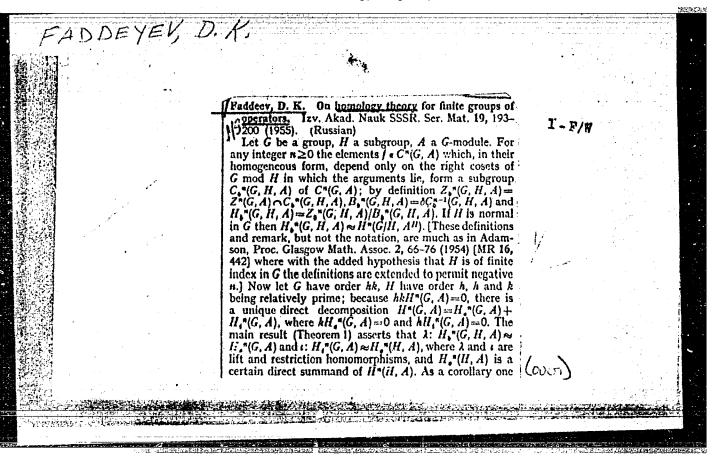
[Collection of problems in higher algebra] Sbornik madach
po vyssbei algebre. Ind. 5-e, aterectipnos. Moskva, Com. ind-vo
tekhniko-teoret. lit-ry, 1954. 308 p.

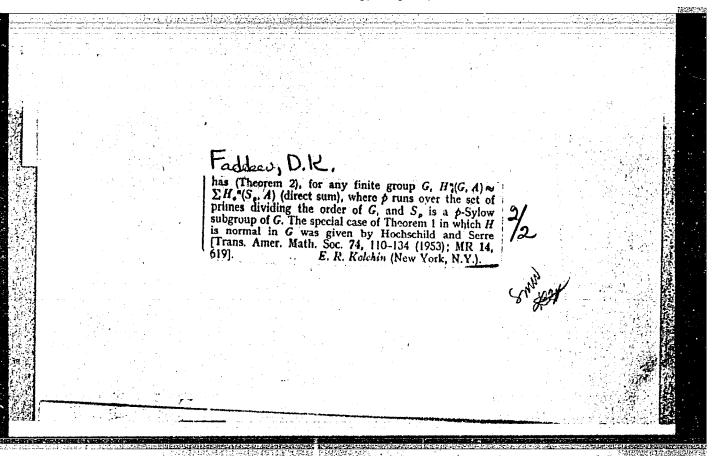
(Algebra--Problems, exercises, etc.)

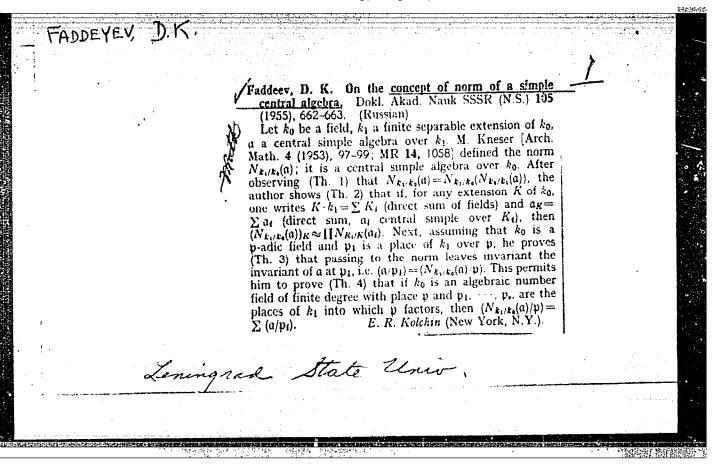












Faddeyev,

44-1-140

TRANSLATION FROM: Referativnyy zhurnal, Matematika, 1957, Nr 1, p 17, (USSR)

AUTHOR:

Borevich, Z.I., Faddeyev, D.K.

TITLE:

On the Theory of Holmology in Groups

(K teorii gomologiy v gruppakh)

PERIODICAL:

Tr. 3-go Vses. matem. s"yezda, 2, Moscow, AN SSSR, 1956, p 111

ABSTRACT:

Bibliographic entry

Card 1/1

DEY

SUBJECT USSR/MATHEMATICS/Theory of probability CARD :/2 PG - 705
AUTHOR FADDEEV D.K.

TITLE On the notion of the entropy of a finite scheme of probability. PERIODICAL Uspechi mat. Nauk 11, 1, 227-231 (1956)

reviewed 4/1957

The entropy $H(p_1, p_2, \dots, p_n)$ of the probability distribution (p_1, p_2, \dots, p_n) (where n is an arbitrary integer ≥ 2 , $p_k \geq 0$ and $\sum_{k=1}^{n} p_k = 1$) is characterized by the following three axioms: 1) H(p, 1-p) is a continuous function of p $(0 \leq p \leq 1)$ and is positive at least in one point. 2) $H(p_1, p_2, \dots, p_n)$ is a symmetric function of its variables. 3) for $n \geq 2$ holds

 $H(p_1, p_2, ..., p_{n+1}) = H(p_1, p_2, ..., p_{n-1}, p_n + p_{n+1}) + (p_n + p_{n+1})H(p_n + p_n)$

where $p = \frac{p_n}{p_n + p_{n+1}}$. This system of axioms is simpler than that given recently

by A.Ja.Khintchine (Uspechi mat.Nauk 8, 3-55 (1953)). The main point of the proof is that it is shown, that the only solutions of the functional equation

SUBJECT USSR/MATHEMATICS/Theory of probability CARD 1/2 PG - 705 FADDERV D.K.

TITLE On the notion of the entropy of a finite scheme of probability. PERIODICAL Uspechi mat. Nauk 11, 1, 227-231 (1956)

ERIODICAL Uspechi mat. Nauk 11, 1, 227-231 (1956) reviewed 4/1957

The entropy $H(p_1,p_2,\ldots,p_n)$ of the probability distribution (p_1,p_2,\ldots,p_n) (where n is an arbitrary integer ≥ 2 , $p_k \geq 0$ and $\sum_{k=1}^n p_k = 1$) is characterized

by the following three axioms: 1) H(p,1-p) is a continuous function of p $(0 \le p \le 1)$ and is positive at least in one point. 2) $H(p_1,p_2,\ldots,p_n)$ is a symmetric function of its variables. 3) for $n \ge 2$ holds

 $H(p_1, p_2, ..., p_{n+1}) = H(p_1, p_2, ..., p_{n-1}, p_n + p_{n+1}) + (p_n + p_{n+1})H(p_n + p_n)$

where $p = \frac{P_n}{P_n + P_{n+1}}$. This system of axioms is simpler than that given recently

by A.Ja.Khintchine (Uspechi mat.Nauk 8, 3-55 (1953)). The main point of the proof is that it is shown, that the only solutions of the functional equation

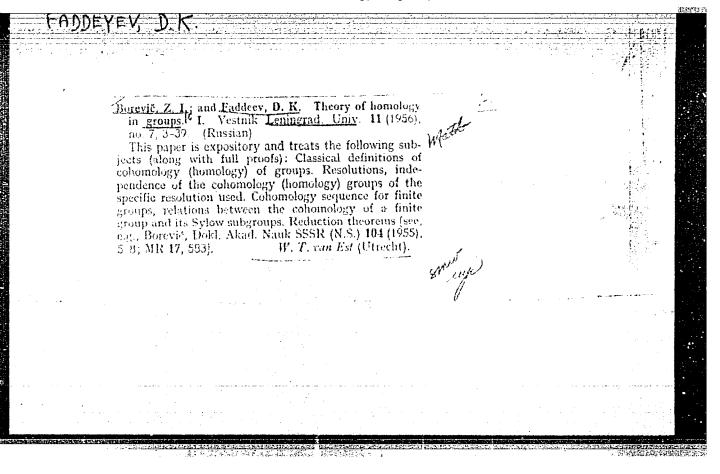
Isidor Pavlovich Matanson; on the occasion of the 50th anniversary of his birth. Usp.mat.nauk 11 no.4:193-196 Jl-Ag *56.

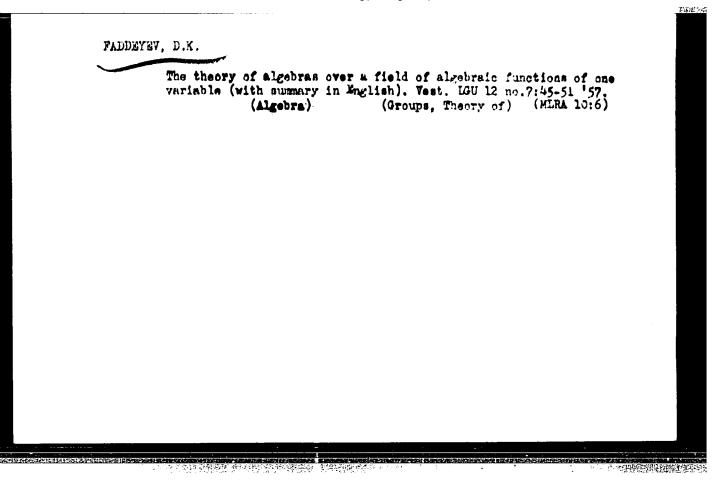
(Matanson, Isidor Pavlovich, 1906-)

(Bibliography--Mathematics)

"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041232





AUTHOR:

Faddeyev, D.K.

SOV/140-58-5-11/14

TITLE:

On the Question Concerning the Upper Relaxation for the Solution of Systems of Linear Equations (K voprosu o verkhney relaksatsii

pri reshenii sistem lineynykh uravneniy)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1958, Nr 5,

pp 122-125 (USSR)

ABSTRACT:

Let the approximate solution $x^{(k)} = (x_1^{(k)}, \dots, x_n^{(k)})$ of the

system Ax=b be sought according to the formula

(1) $a_{ii}x_i^{(k)} = a_{ii}x_i^{(k-1)} + q(b_i - a_{i1}x_1^{(k)} - \dots - a_{i,i-1}x_{i-1}^{(k)} - a_{ii}x_i^{(k-1)} - \dots$

...- $a_{in}x_{n}^{(k-1)}$).

For matrices of second order Ostrovski [Ref 1] showed that for certain q>1 the velocity of convergence of (1) is higher than for q=1. The author states the same fact for matrices of third order.

There is 1 American reference.

Card 1/2

On the Question Concerning the Upper Relaxation for SOV/140-58-5-11/14 the Solution of Systems of Linear Equations

ASSOCIATION: LOMI AN SSSR imeni V.A.Steklova (LOMI, AS USSR, imeni V.A.Steklov)

Card 2/2

AUTHOR:

43-7-15/18

TITLE:

on Some Polynomial Sequences Which can be Applied for the Construction of the Iteration Processes for the Solution of Linear Algebraic Systems of Equations (O nekotorykh posledovatel'nostyakh polinomov, poleznykh dlya

iteratsionnykh metodov resheniya sistem lineynykh algebraiches-

kikh uravneniy)

PERIODICAL: Vestnik Leningradskogo Universiteta, Seriya Matematiki, Mekhaniki i Astronomii, 1958, Nr 7 (2), pp 155-159 (USSR)

ABSTRACT:

1. Let the polynomial sequence $\{i_n(t)\}$ be defined by the formulas:

 $f_0(t) = 1$, $f_1(t) = t$, $f_n(t) = (1+\alpha_n)tf_{n-1}(t) - \alpha_n f_{n-2}(t)$, $n \ge 2$.

Theorem: $f_n(0, \alpha_2, \dots, \alpha_m, 0, \alpha_{m+2}, \dots, \alpha_n, t) =$

= $f_m(0, \alpha_2, \dots, \alpha_m; t) \cdot f_{n-m}(0, \alpha_{m+2}, \dots, \alpha_n; t)$.

Theorem: If $-1 \le \alpha_i \le +1$ for i=2,3,...n is valid, then

 $|f_n(0, \alpha_2, \ldots, \alpha_n, t)| \le 1$ for $|t| \le 1$.

Card 1/2

Theorem: If for $n \ge 2$ there holds $0 \le \alpha_n \le \alpha < 1$, then the sequence

On Some Polynomial Sequences Which can be Applied for the Construction of the Iteration Processes for the Solution of Linear Algebraic Systems of Equations

 $\{f_n(t)\}\$ tends uniformly to zero as $n\to\infty$ on every interval $-a \le t \le a$, a < 1. 2. For the solution of the linear system of equations X = BX + F the author proposes the iteration process

 $X_n = (1+ \bowtie_n)(BX_{n-1} + F) - \bowtie_n X_{n-2}, \quad n \geqslant 2, \quad X_1 = BX_0 + F$ which for a suitable choice of the \bowtie_i shows a better convergence than the usual one $X_n = BX_{n-1} + F$. If $Y_n = X^* - X_n$ denotes the error vector, then there follows $Y_n = (1+ \bowtie_n)BY_{n-1} - \bowtie_n Y_{n-2}$, i.e. $Y_n = f_n(B)Y_0, \text{ where } f_n(t) = f_n(0, \bowtie_2, \dots, \bowtie_n, t) \text{ are the polynomials considered in the first part.}$ It is shown that several well-known iteration processes are special cases of this general scheme.} 3 Soviet and 1 foreign references are quoted.

SUBMITTED: 13 January 1957
AVAILABLE: Library of Congress
Card 2/2

1. Polynomials 2. Linear equations 3. Mathematics Theory

Transactions of the 3rd All-Union (Cont.)

sov/2660

book is divided into two main parts. The first part contains summaries of the papers presented by Soviet scientists at the Conference that were not included in the first two volumes. The second part contains the text of reports submitted to the editor by non-Soviet scientists. In those cases when the non-Soviet scientist did not submit a copy of his paper to the editor, the title of the paper is cited and, if the paper was printed in a previous volume, reference is made to the appropriate volume. The papers, both Soviet and non-Soviet, cover various topics in number theory, algebra, differential and integral equations, function theory, functional analysis, probability theory, topology, mathematical problems of mechanics and physics, computational mathematics, mathematical logic and the foundations of mathematics, and the history of mathematics.

TABLE OF CONTENTS:

BRIEF CONTENTS OF REPORTS OF THE SECTIONS

Section on Theory of Numbers
Gorshkov, D.S. (Leningrad). On the deviation from zero of a polynomial with integral rational coefficients in the interval (0,1)

Card 2/34

Transactions of the 3rd All-Union (Cont.) SOV/2660					
Potapkin, V.K. (Leningrad) and D.K. Faddeyev (Leningrad). On the purely real extension of a fifth degree field of rational numbers with least discriminant					
Remorov, P.N. (Leningrad). On certain integer indeterminate	7				
Polosuyev, A.M. (Moscow). The value of trigonometric sums with exponential functions which cannot be improved (DAN SSSR, 104, No. 2, (1955)	7				
ection on Algebra	8				
Belousov, V.D. (Belitsy). Certain problems of the theory of quasigroups and loops					
Kargapolov, M.T. (Permi) Back.	9				
of bylow subgroups					
ard 3/34					

FADD	J	* * * * * * * * * * * * * * * * * * *	D. K	, A	orthere stitute 956. All	in the state of th	figes, in Dylor,		2	3 %	 有 {	· -	T 1	i i	3	, 1 3		
	16(1) Paint I book ecriptiation sow/2217 Andmeter come been managed to the company of the compan	Makety po griblinhemous saalis (Verte on Approximate Analysis) Nesco 8853, 1559, 391 p. (Its: fruky, tos. 3)) Errate sizy inserted, sopies grifted.	Mai L. T. Emmicrovith, Corresponding Number; USER Academy of Sciences, Professor: Mesp. Mai; I. G. Petrovity, Academician; Departy Nesp. Mai; S. M. Miller, Professor; M. of Philishing Souse; N. K. Leprilk; Penk, Mai; N. A. Academy	Purform; This book is intended for professional asthematisiens inter- is eparamisation arthods.	COVENING: The book sextains a sollection of works in the field of epyroclaste empetations employed at the Leininghold broach of the partners in land V. A. Beallow of the Analogy of Sciences, USB, from 1955 to 1896, All the works contained in this looks are published in full for first time. The theoremitical public of generalization service and the first time.	uplication of methods of functional medywise has a significant place is emblactes 1) approximate methods of contain groups of vortes on the following of methods of vortes on the following of methods of contain the contains of methods of metho	 manageria seriola of linear algebra, and h) manutch compute an inactimite integral. The editor thanks is followed to compute W. M. Pandyora, and the control of the control of the control addition to a seriol of the control of the control of the finite and the control of the finite control of the control of th	and 0. A. color, uniters at the institute; a kinger, K. Ye. Alferiyan tables; Predissor B. M. Intigatly for his critical review of many of the A. A. Brewdaletyy and Mis solleagues for reviewing the ware bredissorre B. K. Paddayev and Th. Te. Almittyn for that it published; beat.	Darking 6. V. Function Determination of the Radii of Univalence Fluidingers, 6. A. (December) on the Approximate Construction of a Conferent Mapping we des Method of Conjugate frigocometrie Series	Is Memorical Co. A. Minalayers. Structures, V. A. Depplementary Tables for the Solution of Persons for Principles for the Solution of Persons for Principles for Principles.	Driver Y. I.s. M. A. Hillers, M. P. Prolora. Computing the Indefinite Integral With a family Respect of Values of the Integrals Property.	Cherning K. Zh. Solution of One Azially Symmetric Problem by the Divers	(Chernia, E. To. Conformal Mapping of Ragions, Composed of Bestangles, on to the Duit Circle	Excidentia, 2. A. Quadrature Permilse With the Lower Britante of the Desider for Certain Cleases of Particus	Surphern, T. M. Finite Difference Settods of Salving Genrust's Preblem Illia, V. P. On "Rabeditas" manne.	- 71	Williams: Librury of Cougrass	
_																· 		

7

16(i)
AUTHORS:
Borevich, Z.I., and Faddeyev, D.K.

TITLE:
Homology Theory in Groups. II. On Projective Resolvents of Finite
Triple:

Homology Theory in Groups. II. On projective Resolvents of Finite

Homology Theory in Groups. II. On Projective Resolvants of Groups (Teoriya gomologiy v gruppakh.II. O proyektivnykh rezolvantakh konechnykh grupp)

PERIODICAL: Vestnik Leningradskogo universiteta, Seriya matematiki, mekhaniki i astronomii, 1959, Nr 7(2), pp 72-87 (USSR)

ABSTRACT: The present paper is a continuation of Ref 2. Let G be a finite group, K be a commutative ring with unit element, O = K[G] group ring of G over K. The authors consider only so-called admissible O-modules (A is admissible if it is a free K-module of finite rank). Two admissible O-modules are called equivalent, of finite rank). Two admissible O-modules P and Q so A ~B, if there exist projective admissible O-modules P and Q so that (A + P) \(B + Q \). Let \(C + C \)

be a projective resolvent of G over K and $\Omega_n = \Omega_n(\varphi) = \partial \varphi_n$. Let the ring K have the property: If a free K-module of finite rank is represented as the sum M + N of K-modules, where M is a free K-module, then also N is a free K-module. Under this assumption it is shown: The O-modules $\Omega_n(\varphi)$ and $\Omega_n(\varphi)$ are

equivalent if φ and φ' denote two arbitrary resolvents. Let

Card 1/2

Homology Theory in Groups. II. On Projective Resolvents of Finite Groups

SOV/43-59-7-8/17

now G be a p-group and K be a complete local ring with the residue class field of characteristic p. Then there exists a minimal ϕ for which all 0-modules $\Omega_n(\phi)$ up to isomorphisms are determined uniquely and are indecomposable. If G is neither

cyclic nor a generalized quaternion group, then these $\boldsymbol{\Omega}_{n}(\boldsymbol{\phi})$

all are different. If K is the galois field GF(p), then for the minimal ϕ of a p-group G there holds the isomorphism

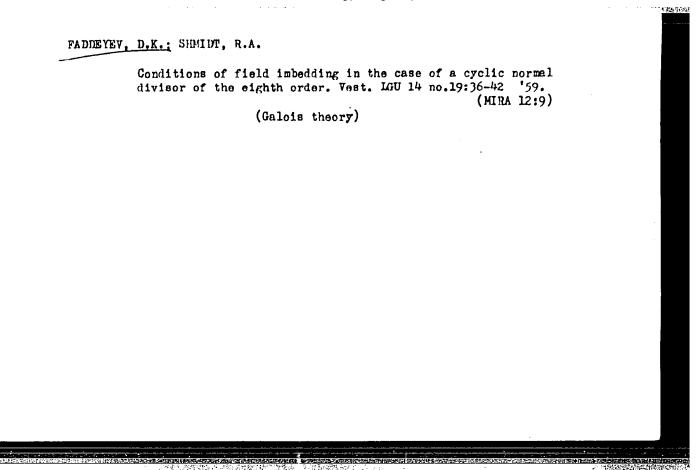
 $H^{n}(G,K) \cong Hom (\Omega_{n}/I\Omega_{n},K) \cong \Omega_{n+1}^{g}$

where I is the ideal of the group ring 0 generated by 6-1(6). 12 theorems and 17 lemmas are formulated altogether.

There are 7 references, 1 of which is Soviet, and 6 American.

SUBMITTED: July 1, 1958

Card 2/2



EASHMAKOV, M.I.; FADDEYEV, D.K.

Simultaneous representation of zero by a pair of quadratic quaternary forms. Vest. IGU 14 no.19:43-46 '59.

(Forms (Mathematics))

ALEKSAHDROV, A.D.; AKILOV, G.P.; ASHDEVITS, I.Ya.; VALIANDER, S.V.;

VLADIMIROV, D.A.; VULIKH, B.Z.; GABURIN, M.K.; KAMTOROVICH, L.V.;

KOLBINA, L.I.; LOZIESKIY, S.M.; LADYZHENSKAYA, O.A.; LINNIK, Yu.V.;

LHEDESV, N.A.; MIKHLIN, S.G.; MAKAROV, B.M.; NATADISON, I.P.;

NIKITIN, A.A.; POLYAKHOV, N.N.; PINSKER, A.G., SMIRNOV, V.I.;

SAFROMOVA, G.P.; SMOLITSKIY, Kh.L.; FADDEYEV, D.K.

Grigorii Mikhailovich Fikhtengol'ts; obituary. Vest. LGU 14 no.19:

(MIRA 12:9)

(Fikhtengol'ts, Grigorii Mikhailovich, 1888-1959)

16(1)

AUTHORS:

Faddeyev, D.K., and Shmidt, R.A.

307/43-59-19-3/14

TITLE:

Conditions of Field Plunging in Case of a Cyclic Normal

Subgroup of the Eighth Order

PERIODICAL: Vestnik Leningradskogo universiteta, Seriya matematiki, mekhaniki i astronomii, 1959, Nr 19(4), pp 36-42 (USSR)

ABSTRACT:

Given a field k_{λ} with the characteristic \neq 2 and its normal algebraic extension k with the Galcia group F. Furthermore a group G and its homomorphic mapping onto F. where the kernel of homomorphy N is a cyclic group of eighth order. The authors investigate the plunging of field k into the field K with the group G over ko for which the natural homomorphism of the group of K onto the group of k is identical with the given homemorphism of G onto F. The necessary conditions are given in Ref 1,2]. The authors obtain an additional condition which, together with those ones formulated in Ref 1,27, is necessary

and sufficient for the desired imbedding. There are 4 references, 2 of which are Soviet, 1 German, and

1 Japanese.

SUBMITTED:

July 1, 1958

Card 1/1

HARRING TO THE

16(1) AUTHORS:

Bashmakov, N. I., and Faddeyev, D.K. SOV/43-59-19-4/14

TITLE:

On the Simultaneous Representation of Zero by a Pair of Quadratic

Forms of Four Variables

PERIODICAL: Vestnik Leningradskogo universiteta, Seriya matematiki mekhaniki i astronomii, 1959, Nr 19(4), pp 43-46 (USSR)

ABSTRACT:

(1)
$$\begin{cases} F_1 = a_1 x_1^2 + a_2 x_2^2 + a_3 x_3^2 + a_4 x_4^2 = 0 \\ F_2 = b_1 x_1^2 + b_2 x_2^2 + b_3 x_3^2 + b_4 x_4^2 = 0 \end{cases}$$

be a curve of genus 1 in the projective space over the field k the characteristic of which is different from 2 and 3. In order that on (1) there exist a rational point it is necessary and sufficient that on the surface

(2)
$$(a_1+b_1t)x_1^2+(a_2+b_2t)x_2^2+(a_3+b_3t)x_3^2+(a_4+b_4t)x_4^2=0$$

in the projective space over the field $K_0 = k_0(t,s)$ there exist a rational point; here t is transcendent over k and

$$a_{1/2}$$
 $a_{1}^{2} = (a_{1} + b_{1}t)(a_{2} + b_{2}t)(a_{3} + b_{3}t)(a_{4} + b_{4}t).$

Card 1/2

On the Simultaneous Representation of Zero by a Pair SOV/43-59-19-4/14 of Quadratic Forms of Four Variables

A rational point on an algebraic manifold in the projective space over the field is a point the coordinates of which belong to this field.

The authors mention I.R. Shafarevich. There are 2 Soviet references.

SUBMITTED: July 1, 1958

Card 2/2

FADDEYEV,	D.K.
Party agreement and the second	Stipulating properties of matrices. Trudy mat. inst. 53:387-391 [59. (Matrices)

16(1)

AUTHORS: Faddeyev, D.K., Skopin, A.I.

307/20-127-3-13/71

TITLE:

On the Proof of a Theorem of Kawada

PERIODICAL:

Doklady Akademii nauk SSSR,1959,Vol 127,Nr 3,pp 529-530 (USSR)

ABSTRACT:

The group of a normal algebraic p-extension k of the local field k of degree n over R is representable as a factor group S/H, where S is a free group with $\nu = n_0 + 2$ generators

and H normal subgroup of S. If all fields k are contained in a fixed extension of K, then the k and the normal subgroups H stand in a one-to-one relation. It is proved that to the fields k there correspond exactly those H which contain a fixed word from S for a fixed K. This statement gives a simpler proof of the result of Kawada / Ref 1 7 .

There are 4 references, 1 of which is Soviet, 1 Japanese, and

2 German.

PRESENTED:

April 11, 1959, by I.M. Vinogradov, Academician

SUBMITTED:

April 9, 1959

Card 1/1

	% stat'i %01 li 500 copies Bolyanady, 1. (Insady,	Corians fileld. on the	iod 1947- "ta since 114er ca in I' let Polegy		558	213	225 225 229	230	245	261	263	270 276 280	285
16(0) **Matematika v SSSR za sorok let, 1917-1957.tom 1: Oberheatica in the 1858 et.	Printed. Ras: A. G. Kurosh, (Chier Ed.), V. I. Bityutskov, W. G. Butyungd, book); A. W. Kapko, Tech. B. J. V. I. Bityutskov, W. G. Butyungd, book); A. W. Kapko, Tech. Bd. J. W. I. Bityutskov, W. G. Butyungd, book); A. W. Kapko, Tech. Bd. J. W. J. Bityutskov, W. G. Butyungdy, wash.	CONTINUED book is intended for mathematicians and historians CONTINUED to the state of the state	ricians. This work follows of some of the leading metric 1947. Borker This work follows of some of the leading metrics in the COS Attention of the leading metrics in the COS Attention and the Erndition serving metrics in the Cost of the Land that is to the major division of the feating the major division of the feating in the COS Attentions and outside and the COS Attentions and outside in the cost of the cost	Padeyev, D. K. Theory of Pields and Polynomials	1. Special Dropertalgebra 2. Theory of interior of matrices 3. Other problems of linear alsebra	Dyakin, Ye. B. Theory of Lie Groups 1. The structure of Lie Groups 2. Liest representation Lie Groups 3. Memogramous varieties 4. The topology of fixed and subgroups of Lie	Aleksandrov, P. S., and V. G. Boltyanskiy. Topology Part I. Set-theoretic Topology	1. Abstract topology 2. General theory of continuous mappings of metric spaces 3. General combinatorial pro-	Complete) Complete) Complete) Complete) Complete sector Complete sector Works not entering into any or	Part II. Algebraic Topology 11 the above paragraphs 1. Gertain works or each	Mometopic groups 100% of mathematicians rigged manifolds of spheres. Pontryagin's method of theorems. But sohomedagid, Johannes	tryagn and Forthcome. Classification of M. M. Postnicov of M. M. Postnicov cycles of Pontryagin and the inner	ults not mentioned earlier

FADDRYEV, Dmitriy Konstantinovich; SOMINKKIY, Il'ya Samuilovich; GO-RIACHATA, M.M., red.; MURASHOVA, M.Ya., tekhn. red.

[Algebra for self-instruction] Algebra dlis samoobraxoveniia.

Moskva, Gos, izd-vo fiziko-matem. lit-ry, 1960. 529 p.

(Algebra)

(Algebra)

PHASE I BOOK EXPLOITATION

SOV/5002

Faddeyev, Dmitriy Konstantinovich, and Vera Nikolayevna Faddeyeva

Vychislitel'nyye metody lineynoy algebry (Computing Methods of Linear Algebra) Moscow, Fizmatgiz, 1960. 656 p. 10,150 copies printed.

Ed.: G. P. Akilov; Tech. Ed.: R. G. Pol'skaya.

PURPOSE: This book is intended for mathematicians.

COVERAGE: The book presents computation methods for solving basic problems in linear algebra, i.e., linear-equation systems, inversion matrices, and complete and partial eigenvalue problems. During recent years many numerical methods of solving such problems have been proposed. The authors find it necessary to systematize such methods and give their generalized exposition. Ch. I. is introductory. The remaining chapters cover material which was partly dealt with in the book by V. N. Faddeyeva, published in 1950 under the same title. A number of theorems, examples, tables, and diagrams are included. The authors thank I. A. Lifshits, R. S. Aleksandrova, V. N. Kublanovskaya, and G. P. Akilov for their assistance. There are 852 references: 126 Soviet, 468 English,

Gard-1/9

GEL'FAND, I.M. (Moskva); DYUDENI, N.Ye. (SShA); KIRILLOY, A.A. (Moskva);
PODSYPANIN, V. (Tula); TER-MERTACHAN, M. (Yerevan); KUZ'MIN, Yu.I.
(Moskva); VEYL', G. (SShA); PADDETEY, D.K. (Leningrad); ARROL'D,
V.I. (Moskva); IVANOV, V.F. (San-Karlos, Kaliforniya, SShA);
GRAYEY, M.I. (Moskva); LEBEDEY, N.A. (Leningrad); LOPSHITS, A.M.
(Moskva); ZHITOMIRSKIY, Ya.I.; MITYAGIN, B.S. (Moskva); SKOPETS,
Z.A. (Yaroslavl'); PUANKARE, A. (Frantsiya); GAVEL, V.V. (Brno,
Chekhoslovakiya); SOLOMYAK, M.Z. (Leningrad); LEVIN, V.I. (Moskva);
BARBAN, M.B. (Tashkent); FRIDMAN, L.M. (Tula)

Problems. Mat. pros. no.5:253-260 '60. (MIRA 13:12)
(Mathematics--Problems, exercises, etc.)

S/043/60/019/004/011/015XX C 111/ C 333

16,1600

AUTHORS: Borevich, Z. J., Faddeyev, D. K.

TITLE: Integral Representations of Quadratic Rings

PERIODICAL: Vestnik Leningradskogo universiteta, Seriya matematiki, mekhaniki i astronomii, 1960, Vol.19, No.4, pp.52-64

TEXT: Let K be a quadratic algebraic number field and L an m-dimensional linear space over K. L can be understood as linear space over the field of the rational numbers. Let $\{1_1, \dots, 1_8\}$ (s = 2m) be an R-base of L. The set M of all linear combinations (a = 2m) be an k-base of L. The set M of all linear combinations all + . . . + all, where all are rational integers, is called a module in L. Let 0 be the ring of all integers of K. All numbers $\alpha \in K$, for which $\alpha \in K$ M C M, form a subring 0_K (ring of the factors) of 0. If a quadratic ring 0_K ($0:0_K$) = f) is contained in 0_K , then M can be understood as 0_K -module. M is called module in K, if m = 1.

X

At first the authors collect some known properties (Ref.2) of the modules and prove three lemmata. Then they treat in § 4 the decomposition theorem. Let A be a module in K; let AM denote the module consisting of the elements αx , $\alpha \in A$, $x \in M$. The exponent

Card 1/5

S/043/60/019/004/011/015XX C 111/ C 333

Integral Representations of Quadratic Rings

of a finite abelian group is defined to be the least common multiple of the orders of its elements.

Lemma 4: If the exponent of the factor group OM/M is equal to f, then $O_{\widehat{\mathbf{M}}}$ is identical with $O_{\widehat{\mathbf{f}}}$.

Lemma 5: Let M be a module in L. In L there exists a K-basis u_1,\ldots,u_m so that the set A of all coefficients ξ_1 in the decompositions $x=\xi_1u_1+\ldots+\xi_mu_m$ ($\xi_1\in K$) of the elements $x\in M$ is a module in K which belongs to the ring 0_M .

Lemma 6: For every M in L it holds the decomposition into a direct sum of 0_M - submodules: $M = Av + M_1$ ($v \in M$), where A is a module in K which belongs to 0_M

Theorem 1: Let L be a linear m-dimensional space over the quadratic field K and M a module in L with the corresponding ring 0_{M} = 0_{f_1} . Then it is

(3) $M = A_1 v_1 + ... + A_m v_m \quad (v_i \in L)$

Card 2/5

S/043/60/019/004/011/015XX c 111/ C 333

Integral Representations of Quadratic Rings where A_i is a module in K belonging to O_{f_4} (i = 1,..., m). Here it is

$$(4) \quad o_{\mathbf{f}_{1}} < o_{\mathbf{f}_{2}} < \dots < o_{\mathbf{f}_{\mathbf{m}}}$$

(v_i can be chosen in M).

§ 5 Invariants. Lemma 7: Let v_1 , $v_2 \in L$ be linearly independent over K. Let A_1 , A_2 be modules in K²which belong to the rings 0_{f_1} , 0_{f_2} . Then in L there exists u_1 , u_2 such that

$$A_1v_1 + A_2v_2 = 0_fu_1 + A_1A_2u_2$$
, where $0_f = 0_f \cap 0_f$

For M let the decomposition

(6)
$$M = A_1 v_1 + ... + A_m v_m (v_i \in L)$$

hold, where A are modules in K.

Lemma 8: The class C(M) of similar modules in K which contains the Card 3/5

86908

S/043/60/019/004/011/015XX C 111/ C 333

Integral Representations of Quadratic Rings

module $A = A_1$, ... A_m , only depends on M and not on the representa-

Theorem 2: Two 0_f -modules M and M' in the linear space L over K are operationally isomorphic relative to O_f , if and only if C(M) and C(M') are identical and OM/M and OM'/M' are isomorphic.

Theorem 3: Let $0 = \{1, f_{\omega}\}$ be subring of the ring of all integral numbers of K. All classes of the operationally isomorphic torsionless numbers of K. All classes of the operationally isomorphic torsionless 0_f -modules with finitely many generators correspond one-to-one to the systems $(f_1, \dots, f_m; C)$, where f are natural numbers, whereby f_1 divides f_1 and f_4 divides f, while C is the class of similar modules in K which belongs to the ring 0_f

Let H(f,m) be the number of classes of the operationally isomorphic 0_{f} -modules which can be embedded in an m-dimensional linear space over K. It is

$$H(f, m) = \sum_{\mathbf{d} \mid f} H(\mathbf{d}, m-1).$$

Card 4/5

S/043/60/019/004/011/015XX C 111/ C 333

Integral Representations of Quadratic Rings

§ 6: Let M be a module over O_f . M is called shortable, if from the isomorphism of M + M' and M + M", where M' and M" are O_f -modules, it follows the isomorphism of M' and M".

Theorem 4: In order that the O₁-module M be shortable, it is necessary and sufficient that the ring of the factors O₂ of C(M) has the property: If A' and A" are modules in K, the rings of which contain the factors O₂, then the similarity of A' and A" follows from the similarity of O₂A' and O₃A".

§ 7. Consequence for integer matrices.

Theorem 5: Let $\varphi(t) = t^2 + at + b$ be an irreducible polynomial with rational integers a and b; let ∞ be zero of φ ; K the quadratic field $R(\alpha)$ and $O_{\Gamma} = \{1, f_{\omega}\}$, where $1, \omega$ is the fundamental base of K. Then the number of the classes of the unimodular equivalent integral matrices of order 2m, for which $\varphi(t)$ is a minimum polynomial, is equal to H(f,m) from \S 5.

There are 2 German references,

Card 5/5

80203 \$/038/60/024/02/01/007

16.1200 AUTHOR:

THOR: Faddeyev, D. K.

TITLE: On the Construction of the Reduced Multiplicative Group of the Cyclic

Extension of the Local Field

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya matematicheskaya, 1960,

Vol. 24, No. 2, pp. 145-152

TEXT: Let 1 be an odd prime number, K a relative cyclic extension of degree $L = l^m$ of the local field k_0 , k_0 a finite extension of the field of the

1 - adic numbers which contains the 1-th root of unity. The author investigates the structure of the group K^*/K^{*1} which is understood one time as a group of operators and the other time as a space with scalar multiplication with the aid of the norm remainder symbol. In theorem 1 it is stated that K^* possesses with respect to $K^{*1,1}$ an "almost normal" base whose elements depend on the fact whether K can be embedded in the cyclic field of degree L1 over k or not. Theorem 2 states that the base elements of the base exhibited in theorem 1 can be chosen of a special kind so that a part of the scalar products of the base elements is equal to zero.

PRESENTED: by I. M. Vinogradov, Academician

SUBMITTED: April 9, 1959

Card 1/1

86405 5/020/60/134/004/031/036XX C111/C333 16.1200 Faddeyev, D.K. AUTHOR: Group of Divisor Classes on the Curve $x^4 + y^4 = 1$ TITLE: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 4, PERIODICAL: pp. 776 - 777 The author proves the finiteness of the group of the classes of rational divisors of zero degree for the field of the algebraic functions k = R(x,y), $x^4 + y^4 = 1$, where R is the rational number field. Let S be the field of the complex numbers. The field K = S(x,y), $x^4 + y^4 = 1$ has the genus g = 3. Among others K contains the following subfields : $K_1 = S(\xi, y), \xi = x^2, \xi^2 = 1 - y^4; K_2 = S(x, \eta), \eta = y^2, \eta^2 = 1 - x^4;$ $K_3 = S(u,v)$, $u = \frac{x}{y}$, $v = \frac{1}{y^2}$, $v^2 = u^4 + 1$. All these K_1 have the genus 1.

86405 S/020/60/134/004/031/036xx C111/C333

Group of Divisor Classes on the Curve $x^4+y^4=1$

group of the divisor classes etc. of K and give homomorphic mappings of these groups into the corresponding groups of the fields K_1 . On the other hand the \mathcal{V}_1 map the groups of the 1-chains, of the 1-cycles and of the 1-homologies of C to the corresponding groups of C_1 . Let \mathcal{V} be the mapping of the Jacobian manifold J (i.e. of the group of the divisor classes of zero degree) of the field K into the direct product $J_1 \times J_2 \times J_3$ of the Jacobian manifolds of the K_1 : $\mathcal{V}(a) = \mathcal{V}_1(a) \times \mathcal{V}_2(a) \times \mathcal{V}_3(a)$, $a \in J$. The author shows that \mathcal{V} maps J epimorphically onto $J_1 \times J_2 \times J_3$ and that the kernel is a group of order eight of the type (2,2,2). Let now R be the field of rational numbers and k = R(x,y), $x^4 + y^4 = 1$. The group of the classes of rational divisors of zero degree of k is mapped by \mathcal{V} into the direct product of these groups for the fields $k_1 = R(\xi_1, y_1)$, $k_2 = R(x, y_1)$, $k_3 = R(u, v_1)$. Since in fields with genus 1 the group of the rational divisor classes of zero degree is isomorphic to Card 2/3

86405 \$/020/60/134/004/031/036XX C111/C333

Group of Divisor Classes on the Curve $x^4+y^4=1$

the group of the rational points, on the curves $\xi^2 = 1 - y^4$, $v^2 = 1 + u^4$ there exist no nontrivial rational points and the kernel of ν is finite, from this it follows the finiteness of the group of the classes of rational divisors of zero degree on $x^4 + y^4 = 1$. It turns out that the order of the group is equal to 32.

Some conclusions, e.g.: There exist at most 32 integer rational divisors of second degree.

There are 2 references, all non-Soviet.

ASSOCIATION: Leningradskoye otdeleniye matematicheskogo instituta imeni V.A. Steklova Akademii nauk SSSR (Leningrad Branch of the Mathematical Institute imeni V.A. Steklov of the Academy of

Sciences USSR)

PRESENTED: May 19, 1960, by I.M. Vinogradov, Academician

SUBMITTED: May 6, 1960

Card 3/3

FADDEYEV. Dmitriy Konstantinovich; SCMINSKIY, Il'ya Samuilovich; AKILOV,
G.P., red.; LUK'YANOV, A.A., texhm. red.

[Collection of problems in higher algebra] Sbornik zadach po vysshei
algebre. Izd.7., ispr. Moskva, Gos. izd-vo fiziko-matem.lit-ry,
1961. 304 p.

(Algebra--Problems, excercises, etc.)

(Algebra--Problems, excercises, etc.)

FADDEYEV, Dmitriy Konstantinovich; PETROVSKIY, I.G., akademik, otv.red.

PFinimali uchastiye: SMAPIRO, A.P., student; TUSHKINA, T.A., studentka;

BOROVSKIY, Yu.Ye., student; SMIRNOV, G.P. [deceased], student;

KUTIKOV, L.B., student; IVANOV, F.A.; NIKOL'SKIY, S.M., prof.,

zamestitel' otv.rd.; SKOPIN, A.I., kand.fiz.-mat.nauk, red.izdaniya;

BARKOVSKIY, I.V., red.izd-va; BOCHEVER, V.T., tekhn.red.

[Tables of the fundamental unitary representations of Fedorov groups] Tablitsy osnovnykh unitarnykh predstavlenii fedorovskikh grupp.

Moskva, Izv-vo Akad.nauk SSSR, 1961. 173 p. (Akademiia nauk SSSR.

Matematicheskii institut. Trudy, vol.56) (MIRA 14:4)

1. Leningradskiy gosudarstvennyy universitet, matematiko-mekhanicheskiy fakul'tet (for Shapiro, Tushkina, Borovskiy, Smirnov, Kutikov).

2. Leningradskoye otdeleniye Matematicheskogo instituta im. V.A.

Steklova (for Ivanov).

(Crystallography—Tables, etc.) (Groups, Theory of)

5/044/62/000/001/054/061

16.6500 16.1500 C111/C222 Faddeyev, D. K., Faddeyeva, V. N.

AUTHORS: On ill-conditioned systems of linear equations TITLE:

Referativnyy zhurnal, Matematika, no. 1, 1962, 37. PERIODICAL:

abstract 1V171.("Zh. vychisl. matem. i matem fiz." 1961,

1, no. 3, 412-417)

A method to solve the ill-conditioned system TEXT:

> (1)Ax = f

is considered. As a measure of conditioning, the author takes the socalled conditioning numbers: N-number = $\frac{1}{n}$ N(A) N (A⁻¹), N(A) = $\sqrt{\text{Sp A'A}}$; M-number = $\frac{1}{n}$ M(A) M (A⁻¹), M(A) = n max | a_{ij} |; P-number = $\frac{\max |\lambda_i|}{\min |\lambda_i|}$,

 λ_i - eigenvalues of the matrix A; H-number = $\int_{\mu_n}^{1}$, μ_1 -- the

largest, μ_n -- the smallest eigenvalue of A'A. The solution of (1) is based on the use of the connection between the eigenvectors of the Card 1/3.

On ill-conditioned systems of linear ... S/044/62/000/001/054/061 C111/C222

matrices A'A and AA'. It is shown that the vectors $v_i = \frac{1}{\sqrt{\mu_1}} Au_i$

form a normed orthogonal system of eigenvectors of AA! when A is not singular and u_1, \ldots, u_n denotes the normed orthogonal system of eigen-

vectors of A'A, belonging to the eigenvalues $\mu_1, \ \mu_2, \dots, \mu_n$, respectively. The vector f is decomposed into the vectors

 v_1 , v_n ; $f = \sum_{i=1}^{n} c_i v_i$ where $c_i = f(v_i)$. The solution to (1) is sought in the set-up $x = \sum_{i=1}^{n} d_i u_i$ where $d_i = \frac{c_i}{u_i}$. Given as an example is the solution of an ill-conditioned system of third order with the symmetric matrix A. The author points out the good agreement of

approximate solutions obtained by various methods. Assuming that the errors of the initial data are much smaller than the smallest eigenvalue of A'A, the influence of the inexact introduction of coefficients and free terms in (1) is clarified.

Abstracter's note: Complete translation.

Card 2/2

M. Parodi's book "Localization of the eigenvalues of matrices and their application". Zhur. vych. mat. i mat. fiz. l no.3:551-552 My-Je '61.

(Eigenvalues)
(Parodi, M.)

VOROB'YEV, N.N.; FADDAYEV, D.K. (Leningrad)

Continualization of conditional probabilities. Teor. veroiat. i
ee prim. 6 no.1:116-118 '61.
(Probabilities)

(Probabilities)

MALYSHEV, A.V.; FADDEYEV, D.K.

Boris Alekseevich Venkov; on his 60th birthday. Usp. mat. nauk
16 no.4:235-240 Jl-Ag '61.

(Venkov, Boris Alekseevich, 1900-)

(Venkov, Boris Alekseevich, 1900-)

Invariants of divisor classes for x^k(1-x) = y¹ curves in an 1-adic circular field. Trudy Mat.inst. 64:284-293 '61. (MIRA 15:3)

Group of divisor classes on certain algebraic quaves. Dokl. AN SSSR 136 no.2:296-298 '61. (NIRA 14:1) 1. Leningradskoye otdeleniye Matematicheskogo instituta imeni V.A. Steklova Akademii nauk SSSR. Predstavleno akademikom I.M. Vinogradovym. (Algebra)

AKILOV, G.P.; VULIKH, B.Z.; GAVURIN, M.K.; ZALGALLER, V.A.; NATANSON, I.P.; PINSKER, A.G.; FADDEYEV, D.K.

Leonid Vital'evich Kantorovich; on his 50th birthday. Usp. mat.nauk 17 no.4:201-215 '62. (MIRA 15:8) (Kantorovich, Leonid Vital'evich, 1912-)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R000412320

经期的出种的

FADDEYEV, Dmitriy Konstantinovich; FADDEYEVA, Vera Nikolayevna;

AKILOV, G.P., red.; ROZF'GAUZ, N.M., red.; LUK'YANOV, A.A., tekhn. red.

[Computation methods in linear algebra] Vychislitel'nye metody lineinoi algebry. Izd.2., dop. Moskva, Fizmatgiz, 1963. 734 p.

(Algebras, Linear)

(Algebras, Linear)

#Numerical solution of algebraic equations" by E.Durand.
Reviewed by D.K.Faddeev. Zhur.vych.mat.i mat.fiz. 3 no.1:
205-206 Ja-F '63. (MIRA 16:2)

(Algebra) (Durand, E.)

VALLANDER, S. V.; LINNIK, Yu. V.; PETRAGHEN, G. I.; POLYAKHOV, N. N.; SMIRNOV, V. I.; FADDEYEV, D. K.

Aleksandr Danilovich Aleksandrov; on his 50th birthday. Vest. LGU 18 no.1:7-9 '63. (MIRA 16:1)

(Aleksandrow, Aleksandr Danilovich, 1912-)

"APPROVED FOR RELEASE: Thursday, July 27, 2000

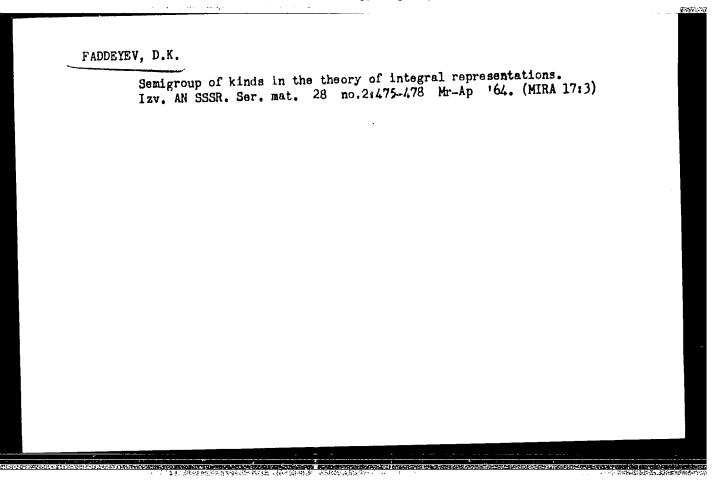
CIA-RDP86-00513R00041232

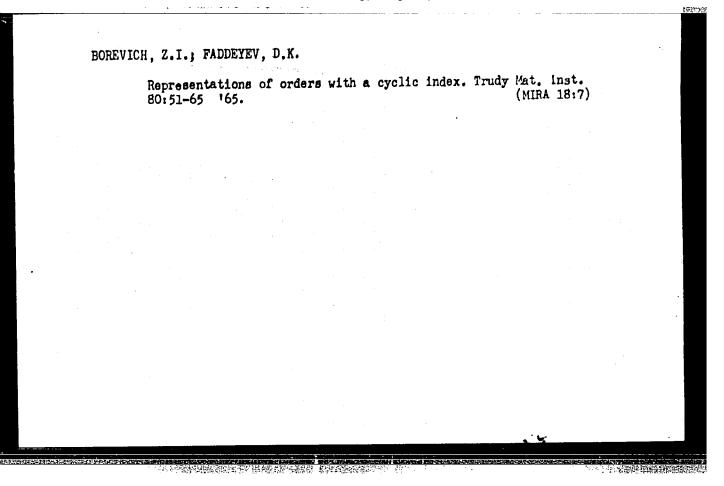
FADIRYEV. Dmitriy Konstantinovich; SOMHLEKIY, Il'ya Samuilovich; CCRYACHAYA, M.M., red.

[Algebra for self-education] Algebra dlia samoobrazovaniia.

[Algebra for self-education] Muska, 1964. 529 p.

Izd.2., iapr. Moskva, Izd-vo "Mauka," 1964. (NIKA 17:7)





Introduction of theory of modul	Introduction of Integral representations to the multiplicative theory of moduli. Trudy Mat. inst. 80:145-182 '65.		
Theory of cubic	Z-rings. 1bid.:183-187	(MIRA 18:7)	
	•		

Note on orders with a cyclic index. Dokl. AN SSSR 164 nc.4:727-728 0 165. (MIRA 18:10)

1. Leningradskoye otdeleniye Matematicheskogo instituta im. V.A. Steklova All SSSR. 2. Chlen-korrespondent All SSSR (for Faddeyev).

FADDRYNV, G.I. (g. Voroshilov-Ussuriyskiy).

Use of moving pictures and lantern slides in physics classes. Fig.v shkole no.6:32-35 '53. (MEA 6:10)

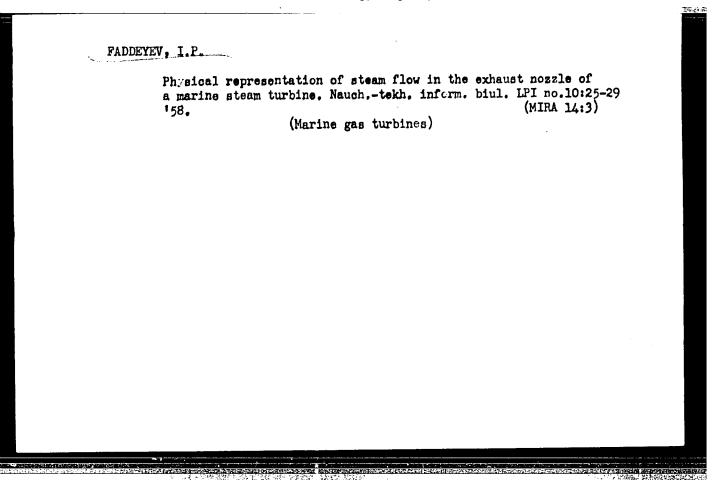
(Physics--Audio-visual aids)

FADDEYEV, G., 'prepodavatel' fiziki (Voroshilov-Ussuriyakiy).

Moving-pictures in schools. Kinomekhanik no.10:11-12 0 '53. (MLRA 6:10)

(Moving-pictures in education)

Training of demonstrators of sound motion pictures. Fiz.v shkole 22 no.1:87-88 Ja-F '62. (MIRA 15:3) 1. 130-ya srednyaya shkola, st. Ussuriyak Dal'nevostochnoy zheleznoy dorogi. (Motion pictures, Talking)



FADDEYEV, I. P., Cand Tech Sci -- (diss) "Effect of the humidity of steam on the economy of performance of a turbine stage." Leningrad, 1960. 18 pp; (Leningrad Ship-building Inst); 250 copies; price not given; (KL, 25-60, 135)

8(6)

\$/143/60/000/02/008/018 D043/D002

AUTHOR:

Faddeyev, I.P., Engineer

TITLE:

The Efficiency Reduction of a Turbine Stage and the Increase of Flow Thru It When Working With Moist

Steam

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy, Energetika,

1960, Nr 2, pp 61-67 (USSR)

ABSTRACT:

Making reference to one of his previous papers \angle Ref 1 J, which deals with the diameter and the velocity of water drops in the axial clearance of a turbine stage, the author determined in this paper the theoretical efficiency reduction of a turbine stage operated with moist steam. As a result of theoretical conclusions, he gives a formula for calculating the efficiency drop when changing over from superheated

to moist steam identical u/C:

Card 1/4

S/143/60/000/02/008/018 D043/D002

The Efficiency Reduction of a Turbine Stage and the Increase of Flow Thru It When Working With Moist Steam

$$\Delta \eta = \eta_{ou}^{nq} - \eta_{ou}^{ful} = 2 \frac{u}{C_o} \left\{ \Delta g_c \sqrt{1 - \rho \cos \alpha_A} + \gamma \cos \beta_2 \right\}$$

$$\sqrt{\rho + \left[\rho_c^{nq} \sqrt{1 - \rho \cos (\beta_A - \alpha_A)} - \frac{u}{C_o} \cos \beta_1 \right]^2} -$$

$$-\sqrt{\rho + \left[\rho_c^{ful} \sqrt{1 - \rho \cos (\beta_A - \alpha_A)} - \frac{u}{C_o} \cos \beta_1 \right]^2} \right\}$$

where w - blade velocity factor; d, B - effective angles of the flow outlet at the nozzles and working blades; not - blade efficiency with superheated and moist steam, calculated according to G.S. Samoylovich and B.M. Troyanovskiy \(\subseteq \text{Ref 3 7; } \rightarrow \text{reaction} \)

Card 2/4

S/143/60/000/02/008/018 D043/D002

The Efficiency Reduction of a Turbine Stage and the Increase of Flow Thru It When Working With Moist Steam

of a stage, calculated according to V.V. Zvyagintsev's formula \angle Ref $4\angle$; \bullet - velocity factor of the director; the value $(u/c_0)_0$ at which the reaction of a stage is equal to zero was determined according to a formula suggested by G.A. Zal'f. Calculations performed according to formula (16) coincide sufficiently with experimental data within the limits of dryness changes behind the nozzles from 0 to 0.94 in the u/c_0 range of 0.35 to 0.55. The results of calculations $\triangle \eta = f(x)$ at $u/c_0 = constant$ coincide sufficiently in the indicated x range. For a stage working with atmospheric pressure behind it, there will be an efficiency reduction of 0,6% for each percent of in-

Card 3/4

S/143/60/000/02/008/018 D043/D002

The Efficiency Reduction of a Turbine Stage and the Increase of Flow Thru It When Working With Moist Steam

creased moisture when changing from superheated to moist steam. As the moisture increases, the flow of steam thru the stage will also increase. If the undercooling of steam is not taken into consideration, results will be obtained which are 1.5-2% lower than experimental data when calculating the flow thru a stage. The experiments were conducted with a large "NZL" steam turbine. The results were compared with similar investigations by Escher-Wyss. Reference is made to Ya.I. Shnee's book / Ref 2 7. There are 3 graphs, and 6 references, 5 of which are Soviet and

1 Swiss.

Leningradskiy politekhnicheskiy institut imeni M.I. ASSOCIATION:

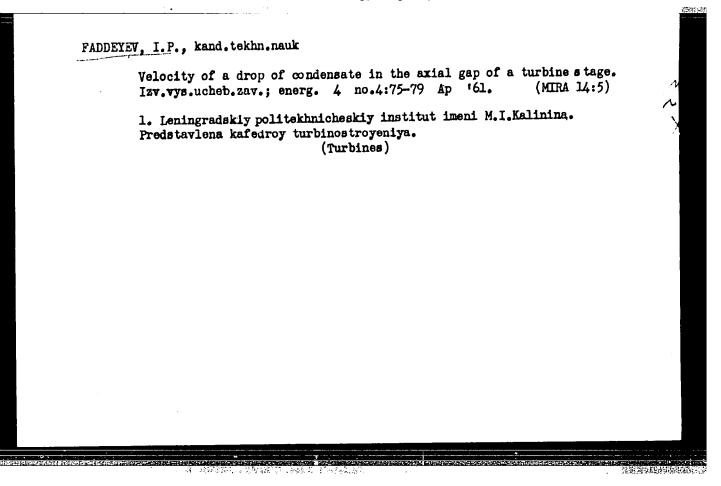
Kalinina (Leningrad Polytechnic Institute imeni M.

I. Kalinin)

October 26, 1959, by the Kafedra turbinostroyeniya SUBMITTED:

(Department of Turbine Building)

Card 4/4



27247 s/170/61/004/009/006/013 B104/B125

11.7410 26.5500

AUTHOR:

Faddeyev, I. P.

TITLE:

Determination of the velocity of a medium-size condensate

drop in a flow of saturated vapor

PERIODICAL:

Inzhenerno-fizicheskiy zhurnal, v. 4, no. 9, 1961, 56-60

TEXT: The author calculates the loss in energy of a vapor flow, which is due to water drops carried along by it. The dependence of the drop velocity on the velocity of the vapor flow and on the vapor parameters is considered to be the most important problem. The equation

considered to be the most important problem. The equation $dS = \frac{10}{3} \, \frac{d}{d} \, \frac{\gamma_w}{\gamma_s} \, \frac{C_w dC_w}{C_{rel}^2} - \frac{100 \, \mu g}{d_o \gamma_s} \, C_{rel}$ is derived for the path S, of a drop in

the vapor flow. Here, $C_{rel} = C_s - C_w$; C_w denotes the velocity of the water drop; C_g is the vapor velocity; γ_w and γ_s denote the specific gravity of water and vapor, respectively; and μ is the dynamic viscosity coefficient of the vapor. This equation is usually solved on the assumption that the Card 1/2

5/170/61/004/009/006/013 B104/B125

Determination of the velocity ...

drop size is independent of C_ of which holds for the case where the drop remains constant after having left the stator blade of a steam turbine. The solution takes into account The author derives two solutions, one the dependence of the drop size on c_{rel} . Calculations with the aid of

these solutions, which were derived on the basis of papers by I Freudenreich (v. 71, no. 20, 1927) and L. I. Dekhtyarev ("Sovetskoye kotloturbostroyeniyey, no. 4, 1938), for a pressure of 1 033 at and a temperature of 100°C , indicated that the approximate expressions derived by Freudenreich may be used for $C_w/C_s \le 0.35$. At higher velocities there is

a sharp contradiction between the results obtained from formulas by Freudenreich, Dekhtyarev, and the present author. Special experiments are needed for determining the actual velocities. There are 2 figures and 7 references: 6 Soviet and 1 non-Soviet.

ASSOCIATION: Politekhnicheskiy institut, g. Leningrad (Polytechnic

Institute, Leningrad)

SUBMITTED:

February 27, 1961

Card 2/2

KACHURINER, Yu.Ya., inzh.; FADDEYEV, I.P., kand.tekhn.nauk

Effect of steam moisture on the performance of the turbine stage.
Energomashinostroenie 7 no.8:5-8 Ag '61. (MIRA 14:10)

(Steam turbines)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R000412320

2. 其2. 新国的主题的数据的 在1. 自然的是第一。

FADDEYEV, I.P., kand.tekhn.nauk

Effect of humidity on the efficiency of a turbine stage. Izv. vys. ucheb. zav.; energ. 6 no.3:112-116 Mr 163. (MIRA 16:5)

1. Leningradskiy politekhnicheskiy institut imeni M.I.Kalinina. Predstavlena Enfedroy turbinostroyeniya. (Steam turbines)

KERILLOV, I.I., doktor tekhn. mank; NGSGVITCKIY, A.I., hand. tekhn. mank;

FALDEYEV, I.P., kand. tekhn. mank

Effect of moisture on the efficiency of turbine stages.

Teploenergotika 12 no.7:46-50 Jl '65. (MIRA 18:7)

1. Leningradskiy politekhnicheskiy institut.

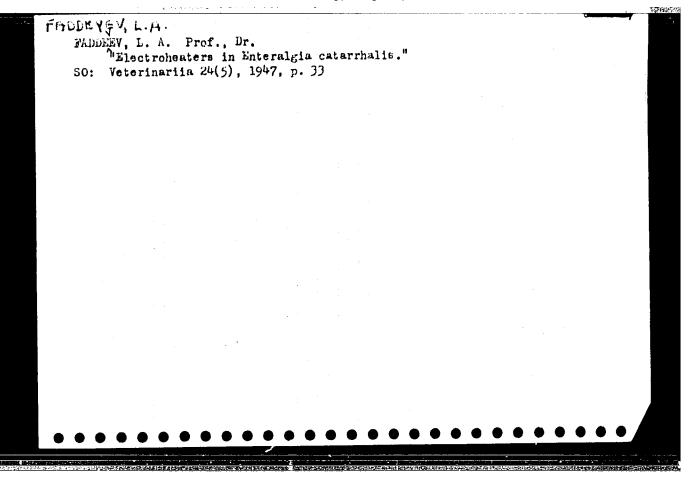
IONOV, P.S.; DOMRACHEV, G.V., prof.; FADDEYEV, L.A.; BRANZBURG, A.Yu., red.; DEGLIN, M.A., tekhn.red.

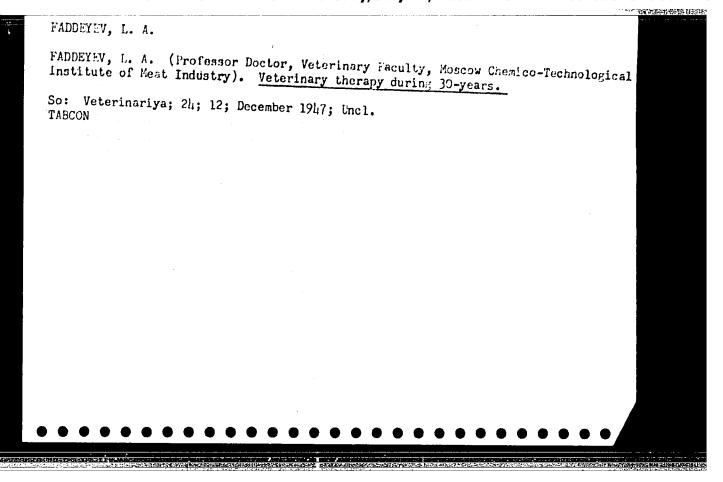
[Diagnosis of diseases of the horse; concise manual for the

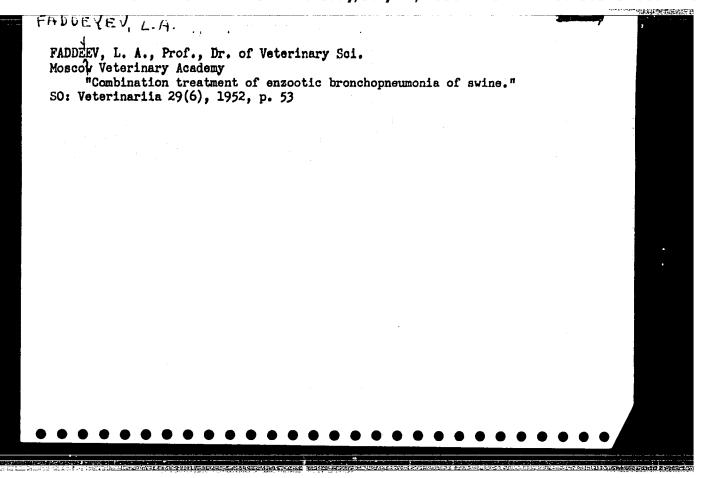
[Diagnosis of diseases of the horse; concise manual for the military veterinarian] Diagnostika bolesnei loshadi; kratkoe rukovodstvo dlia voiskovogo veterinarnogo vracha. Pod red. G.V. Domracheva. Moskva, Gos.isd-vo sel'khoz.lit-ry, 1945. 178 p.

(MIRA 13:3)

(Horses--Diseases and pests)







FADDETEV, L.A., professor; DANIIEVSKIY, V.M., detsent.

Use of protective inhibition according to I.P.Pavlev's method in veterinary medicine. Veterinaria 32 no.9:50-53 S *55.

(MLRA 8:12)

1.Meskevskaya veterinarnaya akademiya.

(VETERINARY MEDICINE) (INHIBITION)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R000412320

Achievements in veterinary therapeutics during 40 years of Soviet regime. Veterinaria 34 no.11:51-56 N '57. (MIRA 10:12)

1.Moskovskaya veterinarnaya akademiya.
(Veterinary medicine)

FADEYEV, Leonid Aleksandrovich, prof., doktor veterin, nauk; SHAPOSHNIKOVA,

A.H., red.; BALLOD, A.I., tekhn.red.; ZUBRILINA, Z.P., tekhn.red.

[Prescriptions in veterinary medicine] Retsepty veterinarnoi terapli. Isd.3., perer. i dop. Moskva, Gos.isd-vo sel'khos.

lit-ry, 1958. 151 p.

(WIRA 12:4)

(Veterinary medicine—Formulae, receipts, prescriptions)

FADDEYEV, L.A., prof.; PANYSHEVA, L.V., dots.; POLYAKIN, V.V., assistent
Classification of diseases of the forestomachs in cattle. Veterinariia 36 no.2:67-70 F '59. (MIRA 12:2)

1. Moskovskaya veterinarnaya akademiya.
(Cattle-diseases and pests)

