L 20330-66

AM5010315

TABLE OF CONTENTS (abridged):

SUB CODE: MM, GO SUBMITTED: 12Oct64 NO REF SOV: 031

OTHER: 002

Card 2/2

LYAPIN, A. I.

SHIPOV, G.A.; LYAPIN, A.I.

Using shuttles of less weight in textile plants. Prom. energ. 12 no.3: 25 Mr '57. (MLRA 10:4)
(Spinning machinery)

LYAPIN, A. N., and KREMENETSKIY, N. D.

"Reconstruction of Irrigation Network in Cotton Planting Collective Farms of Central Asia" peper presented at the Third International Congress on Irrigation and Drainage, San Francisco, 29 Apr-4 May 1957

C-3,800,020

USSR / Cultivated Plants. Plants for Technical II
Oil Plants. Sugar Plants.

LYAPIN, A.N.

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 34720

Author : Lyapin, A.N.
Inst : Central-Asiatic Scientific Research Institute
Title : Experiment with Moderate Rates of Irrigation in Square-Pocket Cultivations of Cotton Plants

Orig Pub : Khlopkovodstvo, 1957, No 6, 51-55.

Abstract : Results of the study of irrigation methods on experimental model areas of collective farms conducted by the MASRI, have led to thefollowing conclusions with irrigation of non-saline soils with a deep ground water level: moderate irrigation norms (800 to 900 m^3/h); applied to

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USSR / Cultivated Plants. Plants for Technical Use. I
Oil Plants. Sugar Plants.

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 34720

trenches with pronounced slopes (approximately 0.010%); the water rate should not exceed 0.03 to 1.1 liter per second so as to avoid washout of the furrows. -- Zairnov.

Card 2/2

124-57-2-1909 D

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 62 (USSR)

AUTHOR: Lyapin, A. N.

TITLE: Investigation of the Tangential Accelerations in Prismatic and Channeled Flows of a Real Fluid (Issledovaniye tangentsial'nykh uskoreniy v prizmaticheskikh i ruslovykh potokakh real'noy zhidkosti)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the Gos. gidrolog. in-t (State Hydrology Institute), Leningrad, 1956.

ASSOCIATION: Gos. gidrolog. in-t (State Hydrology Institute), Leningrad

1. Fluid flow--Analysis

Card 1/1

LYAPIN, A.N.

124-11-12698

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr 11, p 53 (USSR)

AUTHOR: Lyapin, A. N.

TITLE: On the Causes of the Meandering of Streams.
(O vozniknovenii izvilistosti rusel)

PERIODICAL: Tr. Gos. gidrolog. in-ta, 1956, Nr 56(110), pp 103-117

ABSTRACT: Consideration is given to the various causes that may contribute to the meandering of natural streams. Analyzing the equations of motion and assuming an empirical law of the variation of accelerations arising in the stream flow, the Author arrives at a conclusion on the formation of periodic or quasi-periodic motions in the stream flow. This, in turn, leads to "meandering". The nature of such motions, the A. maintains, lies in the stability of the curvilinear currents. A mathematical analysis of the stability of such motions is not given.
Bibliography: 18 references.
Ye. M. Minskiy

Card 1/1

LYAPIN, A.N

AUTHOR: Lyapin, A.N., Candidate of Technical Sciences 99-6-6/9

TITLE: "Exploitation of Hydro-Melioration Systems". (Ekspluatatsiya gidromeliorativnykh sistem)

PERIODICAL: "Gidrotekhnika i Melioratsiya", 1957, Nr 6, pp 51-52 (USSR)

ABSTRACT: In order to meet the need for manuals on the subject of hydro-melioration at technical schools, a textbook on this subject was published by a group of authors (S.R. Offengenden, A.D. Panadiagi, S.P. Trombachev, M.I. Yarushin, N.D. Kremenetskiy, G.S. Kagan, I.G. Nikolayev and Ye.G. Trubacheva). The textbook, called "Ekspluatatsiya gidro-meliorativnykh sistem" (Operation of Hydro-Melioration Systems), is based on the "Directives for the Technical Operation of Irrigation Systems", recently issued by the Ministry of Agriculture. As much as there was a demand for such a publication, a number of deficiencies must be mentioned. The manual contains no separate chapter on irrigation and drainage, the problems of silting and cleaning of canals are not mentioned, insufficient instructions are given on general maintenance of canals and installations, etc.

AVAILABLE: Library of Congress

Card 1/1

LYAPIN, A.N., kand.tekhn.nauk; OKULICH-KAZARIN, E.L., starshiy nauchnyy sotrudnik

Leveling irrigated areas on collective and state cotton farms. Trudy SANIIRI 93:69-114 '58. (MIRA 14:5)
(Leveling) (Irrigation)

KONDRAT'YEV, Nikolay Yevgen'yevich, kand.tekhn.nauk; LYAPIN, Aleksey Nikolayevich, kand.tekhn.nauk; POPOV, Igor' Vladimirovich, kand.geogr.nauk; PIN'KOVSKIY, Stepan Iosifovich, mladshiy nauchnyy sotrudnik; FEDOROV, Nikolay Nikolayevich, kand.tekhn. nauk; YAKUNIN, Ivan Ivanovich, kand.tekhn.nauk; GROSMAN, R.V., red.; VLADIMIROV, O.G., tekhn.red.

[Channel process] Ruslovoi protsess. Pod red. N.E.Kondrat'eva. Leningrad, Gidrometeor.izd-vo, 1959. 370 p. (MIRA 13:1) (Hydrology)

10(4) SOV/50-59-10-3/25

AUTHOR: Lyapin, A. N.

TITLE: Flow About a Long Sandbank by the River Current

PERIODICAL: Meteorologiya i gidrologiya, 1959, Nr 10, pp 13 - 21 (USSR)

ABSTRACT: Contrary to the theoretical scheme of the article mentioned in reference 1, which is based on the consideration of the separation of the turbulent boundary layer from the bottom, this investigation is based on the fact that the currents in the river bed are discrete (Ref 2), as well as on a hypothesis established by the author in a previous paper (Ref 4). The author made use of investigations of the current along two sandbanks carried out on the right bank (in summer 1958) of the small river Yulyayoki on the Karel'skiy isthmus. The formation of the long sandbank by the flood has already been described by the author (Ref 4). In this paper, the dynamic characteristics of the current in a deformed river bed are investigated. The sandbank is fairly long, and the opposite bank is comparatively near. The current is therefore regarded as a one-dimensional, that is to say, a plane current, in which the streamlines in the surface layers and those near the bottom remain parallel to one another. This simplification allows for an investigation of the current shape in outline and in pro-

Card 1/2

Flow About a Long Sandbank by the River Current SOV/50-59-10-3/25

file if the dissipation of energy and the gradient of the river bed vary. Analysis of the variation of the free surface permits the formulation of the condition for the possibility of a whirlpool movement within the area of the sandbank. Formulas (12),(13), and (14) are deduced here. The latter allow for an analysis of the variation in the sandbank shape also when the dissipation of energy varies. Figure 4 (Diagram) illustrates that increasing dissipation leads to a decrease in the relative velocity, i.e. to a narrowing of the current in outline. Thus, the sandbank tapers and is shortened. The above formulas, which were deduced for a horizontal river bed, make it possible to take the gradient of the river bed into account by varying a certain coefficient for every single angle of inclination. There are 4 figures and 5 Soviet references.

Card 2/2

LYAPIN, A.N.

Erosive power of streams with sediment transportation in the form of sand waves. Trudy GGI no.69:43-69 '59.
(MIRA 12:6)

(Hydrodynamics)

LYAPIN, A.N.

Dynamic characteristics of the flow of a stream around islands and bank projections. Meteor.i gidrol. no.5:33-36 My '61.
(MIRA 14:4)

(Hydrology)

LYAPIN, A.N., laureat Stalinskoy premii, kand.tekhn.nauk, dotsent;
OKULICH-KAZARIN, E.L., aspirant

Leveling the surface of irrigation tracts in cotton planting regions. Trudy TIIIMSKH no.1:75-94 '55. (MIRA 15:4)

1. Kafedra vodosnabzheniya Tashkentskogo instituta inzhenerov irrigatsii i mekhanizatsii sel'skogo khozyaystva (for Lyapin).
2. Sredneaziatskiy nauchno-issledovatel'skiy institut irrigatsii, Tashkent (for Okulich-Kazarin).
(Cotton—Irrigation)

LYAPIN, A.N.

Turn in the river flow with cavitation at the convex bank.
Meteor. i gidrol. no.9:19-27 S '62. (MIRA 15:8)

1. Gosudarstvennyy gidrologicheskiy institut.
(Rivers)

IVAPIN, A.N.

Calculation of channel deformations; two-dimensional and plane problems. Trudy GGI no.116:19-31 '64. (MIRA 17:12)

LYAPIN, A.N., kand. tekhn. nauk

Study of near-bottom channel trubulence. Meteor. i gidrol. no.3: 14-20 Mr '65. (MIRA 18:2)

1. Gosudarstvennyy gidrologicheskiy institut.

LIAPIN, Andrey Pavlovich

[The principal economic problem of the U.S.S.R.] Osnovnaia ekonomicheskaia zadacha SSSR. Moskva, 1957 50 p. (MLRA 10:5)
(Russia--Economic policy)

LYAPIN, Andrey Pavlovich, redaktor; MAKAROVA, M.F., redaktor; GUBAREVA, O.Ye., redaktor

[A collection of articles on economic problems] Sbornik statei po ekonomicheskim voprosam. Moskva, Akademiia obshchestvennykh nauk pri TsK KPSS. 1957. 255 p. (MIRA 10:11)
(Russia--Economic policy)

LYAPIN, A.P., prof., glav. red.; DOROSHEV, I.A., prof., red.; KULIKOV, A.G., dotsent, red.; GRZHEGORZHEVSKIY, A.N., dotsent, red.; KUDRYAVTSEV, S.P., red.; PROKOP'YEV, S.P., red.; NAUMOV, K.M., tekhn. red.

[Labor productivity problems during the period of the building of communism] Voprosy proizvoditel'nosti truda v period stroitel'stva kommunizma. Moskva, Izd-vo VPSh i AON pri TsK KPSS, 1961. 430 p. (MIRA 14:8)

1. Moscow. Akademiya obshchestvennykh nauk.
(Labor productivity)

ALLAKHVERDYAN, D.A., prof.; AMINOV, A.M., doktor ekon. nauk; AGLAS, M.S., prof.; D'YACHENKO, V.V., dots.; ZLOBIN, I.D., prof.; KADYSHEV, L.A., dots.; KARNAUKHOVA, Ye.S., prof.; KOTOV, G.G., prof.; LEVITANUS, I.M., dots.; LIVSHITS, A.L., dots.; LYAPIN, A.P., prof.; MAKAROVA, M.F., prof.; MASLOV, P.P., prof.; SONIN, M.Ya., doktor ekon.nauk; SOROKIN, G.M.; STRUMILIN, S.G., akademik; TUMANOVA, L.V., dots.; TUROVTSEV, V.I., dots.; FIGURNOV, P.K., prof.; MOKHOVA, N.I., dots., red.; SHCHERBAKOVA, V.V., dots., red.; SHVEYTSER, Ye.K., red.; MURASHOVA, V.A., tekhn. red.

[The economics of socialism]Politicheskaia ekonomiia sotsializma. Izd.2., perer. Moskva, Gos.izd-vo "Vysshaia shkola," 1962. 614 p. (MIRA 16:3)

1. Chlen-korrespondent Akademii nauk SSSR (for Sorokin).
(Economics) (Communism)

LYAPIN, D.P.; IMAS, A.D.; MOGIL'NIKOV, S.F.; RUDOV, V.N.

New developments in conducting preparatory mine work. Ugol' 29 no.5: 37-40 My '54. (MLRA 7:6)

1. DonUGI. (Coal mines and mining)

LYAPIN, D. P.

News in Preparatory Mine Workings. Minno Delo (Mining), #2:40:Feb 55

LYAPIN, D.P.; YATSKIKH, V.G.; KOMAROV, N.I.; SHUMILOV, V.V.

The over-all mechanization of cleaning and preparation work.
Mekh. trud. rab. 10 no.9:5-9 S '56. (MLRA 9:10)

(Coal mines and mining)

LYAPIN, D.P.; MOGIL'NIKOV, S.V.; PASTUSHKOV, M.T.; RUDENKO, P.F.

Mechanizing labor-consuming operations in cutting development openings. Ugol' 31 no.5:11-15 My '56. (MLRA 9:8)

1. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut.
(Coal mining machinery)

LYAPIN, D.P., inzh.; KOMAROV, N.I., inzh.; YATSKIKH, V.G., inzh.

The over-all mechanization of cleaning and preparatory work.
Mekh.trud.rab. 11 no.8:25-27 Ag '57. (MIRA 10:11)
(Coal mines and mining)

KONDRASHEV, F.S., inzh.; LYAPIN, D.P., inzh.; PRIVALOV, V.P., inzh.

Stoping without miners. Bezop.truda v prom. 4 no.1:12 Ja '60. (MIRA 13:5)
(Coal mines and mining)

LYAPIN, D.P., inzh.; YATSKIKH, V.G., inzh.; YUROVSKIY, L.A., inzh.; CHEBOTKOV, I.P., inzh.; OVCHAROV, V.S., inzh.

Coal mining without miners using the UPD sawing machine in developing the "Izvestniachka" seam of Dzerzhinskugol' Trust Artem Mine. Sbor.DonUGI no.20:3-15 '61. (MIRA 15:6)
(Donets Basin--Coal mines and mining)

LYAPIN, D.P., inzh.; KONDRASHEV, F.S.; MOGIL'NIKOV, F.S.; RUDENKO, P.F.

Results of industrial tests in the Donets Basin of the new technology of mining steeply dipping seams with the drilling and blasting method without the presence of men in the stope. Sbor.DonUGI no.20:39-58 '61. (MIRA 15:6)
(Donets Basin--Coal mines and mining) (Blasting)

STARODUBTSEV, V.L., inzh.; KONDRASHEV, F.S., inzh.; LYAPIN, D.P., inzh.;
OPREDELENNOV, B.Ye., inzh.

Effect of the worked-out level on the gas conditions of the underlying block. Sbor.DonUGI no.20:59-76 '61. (MIRA 15:6)
(Mine gases)

LYAPIN, D.P., inzh.; KONDRASHOV, F.S., inzh.; SKAFA, B.F., inzh.

New techniques in coal mining in steep seams. Bezop.truda v prom. 5 no.1:10-11 Ja '61. (MIRA 14:2)

1. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut.
(Coal mines and mining--Technological innovations)

LYAPIN, D.F., inzh.; KOMAROV, N.I., inzh.; SUKHENKO, S.K., inzh.; SHAPIRO, I.G., inzh.

Possible area of using a circular crader-conveyor as a type of actuating mechanism for the machine unit method of coal mining in the Donets Basin. Sbor. DonUGI no.33:249-259 '64. (MIRA 17:11)

LYAPIN, F. YA.

424112: LYAPIN, F. YA. Padzhikikskiy sel'skokhozyaystvennyy institut. Zapiski Padkh. s-kh in-ta t 1, 1948, c 17-24.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948

LYAPIN, G. (Kiyev)

National task. Zhil.-kom. khoz. 12 no.4:23-24 Ap '62. (MIRA 15:7)
(Kiev—Children's clubs)

107-57-2-16/56

AUTHOR: Lyapin, G. (065509, Novosibirsk)

TITLE: VHF Long-Distance Communications. Short and Ultrashort Waves (Dal'niye svyazi na UKV. Korotkiye i ul'trakorotkiye volny)

PERIODICAL: Radio, 1957, Nr 2, p 18 (USSR)

ABSTRACT: A report on long-distance communications established by radio amateurs of Novosibirsk in 1956. On August 13, contact was established between Novosibirsk and UA9KWA (Ufa), 043043 and 043015 (Bashkir ASSR). On September 21, 1956, radio amateur Kolesnikov (065507, Novosibirsk) established communication with Simonov (068005, Novocherkassk). Later Novosibirsk radio amateurs Voznyuk (065501), Orlov (065508), Kolesnikov (065507), Lyapin (065509), Rumyantsev (065513), and others, established many contacts with Novocherkassk radio amateur Skrypnik (068030); Gatilov (068017) established communication with Kravchenko (068003, Rostov-na-Donu), and also with Borisenko (033503, Zaporozh'ye), Rozhkov (033501), Krymskiy (033508); contacts were also made with these Taganrog radio amateurs: Nikul'chik (068021), Gobyato (068040), Dubkov (068055), and Kabanov (068042). Sometimes Novosibirsk was lucky enough to get in touch with Shchebenkov (070507, Smolensk), Vol'skiy (070504, Smolensk); with Gruzov (077513, Moscow), Belyayev (077542, Moscow); and with Goncharenko (031013, Gorsk). Most of the stations were heard with RSM

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VHF Long-Distance Communications. Short and Ultrashort Waves

475 and some with 595. On September 24, 1956, at 12.20 hours Moscow time, a contact was established between Novosibirsk (065507) and Kaunas (UP2KBC) at the distance of 5,000 km. On October 7, 1956 a contact was held for 15 minutes between Khabarovsk (051501) and Novosibirsk (065507 and 065509).

AVAILABLE: Library of Congress

SOV/115-59-8-15/38

AUTHOR: Nenyukov, V.P., Zhmur, A.C., Lyapin, G.L.

TITLE: Use of a Ballistic Pendulum for Graduation of an Accelerometer (Primeneniye ballisticheskogo mayatnika dlya graduirovki datchikov uskoreniy)

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 8, pp 29-31 (USSR)

ABSTRACT: The article describes the accelerometer, previously described in the article: "A bonded wire strain gauge type accelerometer". Exp. Stress. Anal. 1953, Vol 6, Nr 3, E.W. Kammer, Sherwood Holt. There are 1 graph, 1 photograph and 1 English reference.

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SOV/115-59-5-11/27

9(3)

AUTHORS: Nenyukov, V.P., Zhmur, A.S. and Lyapin, G.L.

TITLE: Piezoelectric Accelerometers

PERIODICAL: Izmeritel'naya Tekhnika, 1959, Nr 5, pp 17-19 (USSR)

ABSTRACT: The piezo quartzmeter is designed to indicate sudden acceleration. It has a cylindrical shape and a thread on the bottom to fix it to the object which is to be measured. The upper part has a hexagon shape. Fig.1: The instrument has an inner channel, which is pressed into a plexiglass plug insulating the piezo quartz plates from the steel housting. To achieve a better distribution of pressure, a hardened plate ground against test glass is laid under its end. Between the piezo quartz plates, an intermediate plate is fixed to serve as a "vis inertiae". Both sides of the surface are also edged with test glass. The article now gives the theoretical conditions for smooth functioning. If the conditions are met, accelerations of 20 to 20,000 g can be measured. The sensitivity is steady. To raise the sensitivity Ti-Ba plates can be used. They can, however, only be used in the laboratory, because

Card 1/2

Piezoelectric Accelerometers

they are sensitive to temperature. The conditions for assembling the instrument follow. Fig.2 shows the switching to adjust the instrument. The adjustment and possible variations of types are discussed. The weigh of the inert body is 1.2 gr. With an acceleration of 1000 g a capacity of 500 mkmkF results on the quartz surfaces, which corresponds to 0.1 V. Because of the high sensitivity amplifiers used are in most cases weak. There are 1 diagram and 1 layout.

S/115/60/000/007/006/011
B019/B058

AUTHORS: Nenyukov, V. P., Zhmur, A. S., Lyapin, G. L.

TITLE: A Tensiometric Acceleration Pickup

PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 7, pp. 28 - 30

TEXT: The two types of pickups developed for the measurement of linear accelerations are mentioned in the introduction. Type A was developed at the Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute), and type B was developed later, in consideration of the shortcomings of type A. Two small cups made from duralumin (Fig. 1) are used in type A as sensitive elements, while the body of the pickup itself is rigid and also made from duralumin. Two tensiometric converters connected in a bridge (Fig. 2) are used for the conversion into electric signals of the deformations of the small cups, developing through the acceleration, and the determination of the expansive forces is discussed in detail. The main data of the pickups of type A of various dimensions are given in Table 1. A uniform duralumin cylinder is used as sensitive element for the acceleration pickup of the type B. This very thin

Card 1/2

A Tensiometric Acceleration Pickup

S/115/60/000/007/006/011
B019/B058

aluminum cylinder is inserted into a cylindrical body and has thickenings at its ends for the purpose of fixing and a thickening in the middle for the fixing of an inert body. The sensitivity of this pickup can be adjusted to the conditions required by a variation of the inert mass, and relevant details are discussed with the aid of Figs. 4 and 5. The data of various models of the type B pickup are listed in Table 2, and the authors discuss the use of wire converters for the conversion of the expansive forces. There are 5 figures and 2 tables.

Card 2/2

LYAPIN, G. M., Vet.
Namangan City Veterinary Hospital, Uzbek SSR
"Treatment of theileriasis with sulfantrol."
SO: Veterinariya 27(3), 1950, p. 20

COUNTRY	:	USSR
CATEGORY	:	Cultivated Plants. Fodder Grasses and Roots. I
ABS. JOUR.	:	RZhBiol., No. 1, 1959, No. 1707
AUTHOR	:	Lyapin, G.S.
INST.	:	
TITLE	:	For the Maximum Increase of Lupine Crops.
ORIG. PUB.	:	Byul. nil'skogorpod. inform. Kiev'sk. obl., 1957, Vyp. 4, 35-37
ABSTRACT	:	Experimental data of various experimental stations and scientific research institutes of the Ukrainian Soviet Socialist Republic on the basis of which the conclusion was drawn that the effectiveness of potassium fertilizers will be higher during their introduction under lupine sowing, but not under rye, during the plowing of the lupine. According to 25 year experiments of the Novozybkovsk agricultural station, increases of potassium fertilizers under lupine calculated for 1 kg/hectare of the active elements, the potassium fertilizers

CARD: 1/3

COUNTRY :
CATEGORY :

ABS. JOUR. : RZhBiol., No. 1, 1959, No. 1767

ABSTRACT : were demonstrated on three subsequent crops. In comparison with the crops of plants sown over unfertilized lupine, the crop increase under fertilization of lupine with potassium fertilizers in the course of the next 3 years comprised as follows per hectare: rye - 3 centners, potato 16.7 centners and oats - 1.3 centners. Introduction of potassium fertilizers decreased lupine diseases by fusarium and other illnesses, it made the lupine more drought resistant, shortened the length of the vegetation period of bitter lupine by 4-14 days and increased the yield of ripened beans in the first decade up to 7% (in the control up to 4.3%). The weight of roots of yellow feeding lupine increased by 40% after fertilization with potassium, the weight of tubers doubled, the protein yield per one hectare increased from 1.25 to 1.67 centners at the expense of a greater protein content in the seeds. The results of experiments show that all forms of potassium

CARD: 2/3

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6309

Author : Lyapin, G. S.
Inst : Not given
Title : Increased Utilization of Potassium Fertilizers Under Lupine

Orig Pub : Zemledeliye, 1958, No 3, 17-19

Abstract : This is a generalization based on data accumulated over a period of 40 years on the effectiveness of potassium fertilizers on annual lupine in various zones of the USSR. In almost all the experiments, potassium fertilizers increased the yield of grain of lupine by 2 - 4 cwt/ha or more. The author relates the effective action of single potassium fertilization on lupine to the

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6309

reduction of the vegetation period which it causes, the increase in activity of tuber bacteria and increased resistance to unfavorable weather conditions. At the same time it is noted, that K increases the content of albumin in the seeds of lupine as well as the yield of subsequent crops. By using experimental data the author determined that 1 kg/ha of the active substance in potassium fertilizers can produce 6 kg of lupine seeds and 165 kg of green mass. -- V. V. Prokoshev

Card 2/2

NIKITIN, V., master; GRISHKO, M., brigadir slesarey; GORYUNOV, L., slesar'; YERSHOV, T., slesar'; ZHIGAREV, B., slesar'; KONOVALOV, V., slesar'; LYAPIN, K., slesar'; NOSOV, P., slesar'; TAMANOV, P., mashinist

When will the new acethylene generator be put into production?
Izobr. i rats. no.10:44 O '58. (MIRA 11:11)
(Acethylene generators)

LYAPIN, K., inzh.

All-Union Public Inspection of the Quality of Construction.
Zhil. stroi. no.10:25-30 '65. (MIRA 18:11)

KASINTSEV, I., inzh.; KRYNSKIY, G., inzh.; LYAPIN, K., inzh.; STEPANYUK, Ye., inzh.

What inspection has shown. Zhil. stroi. no.11:29-31 '65.
(MIRA 18:12)

LYAPIN, M.A., inzh.; OLYUNIN, V.V., inzh.

Enrichment of sand-gravel mixes in conical sieves. Stroi. mat. 10 no.9:9-11 S '64 (MIRA 18:2)

LYAPIN, M.F.

AID P - 5006

Subject : USSR/Engineering

Card 1/2 Pub. 110-a - 8/17

Author : Lyapin, M. F., Kand. Tech. Sci.

Title : Heat transfer and aerodynamic resistance of the clusters of smooth tubes at large Reynolds numbers of a gas flow.

Periodical : Teploenergetika, 9, 49-52, S 1956

Abstract : The author describes experimental investigations performed at the Navy School of Advanced Engineering Studies in 1953 and 1954, and the results obtained. The heat transfer and aerodynamic resistance of clusters washed transversally by a gas flow at R numbers over 10^5 were analyzed. The author demonstrates that at $R = 1,2 \cdot 10^5$ and at larger R numbers a sharp intensification of heat transfer occurs in regular and checkered clusters. 2 tables, 4 diagrams. 3 references.

AID P - 5006

Teploenergetika, 9, 49-52, S 1956

Card 2/2 Pub. 110-a - 8/17

Institution : Navy School of Advanced Engineering Studies

Submitted : No date

LYAPIN, M.P. (Kazan')

Existence and uniqueness proofs in the course of stereometry. Mat.v shkole no.3:21-32 My-Je '54. (MLRA 7:6)
(Mensuration)

LYAPIN, M.P. (Kazan')

What students in secon dary schools should knew about the drawing of three-dimentional figures. Mat. v shkole no.4:31-42 Jl-Ag '56. (MLRA 9:9)
(Geometrical drawing)

124-57-1-1093

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 152 (USSR)

AUTHOR: Lyapin, M. V.

TITLE: Calculation of the Wind-resisting Box Structure of a High Building (Raschet vetrovoy korobki vysotnogo zdaniya)

PERIODICAL: V sb.: Raschet prostranstvennykh konstruktsiy, Nr 3. Moscow, Gos. izd-vo lit.po str-vu i arkhitekture, 1955, pp 9-46

ABSTRACT: In order to absorb the horizontal wind load of a high building, special structures are employed consisting of reinforced-concrete and metal walls and closed box structures of considerable height, which are weakened by a large number of openings in the horizontal and vertical direction. Statically a wind-resisting box structure is considered as a system consisting of a number of extremely high plates, rigidly connected to one another by means of webs. In view of the elevated height-to-width ratio (> 30) of these plates, they may be replaced by bars so far as the calculation is concerned. The system is basically assumed to consist of a number of elastic vertical bars, interconnected at various levels by means of hinged elastic bars. The search for the law of variation of the moments with height is reduced

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124-57-1-1093

Calculation of the Wind-resisting Box Structure (cont.)

to the calculation of unbraced frames. The distribution of the internal forces in a horizontal section of the box is performed on the basis of the six-term equations of elasticity. The following different cases of loading are examined: 1. A horizontal force P applied at the level of the highest collar beam of the frame. 2. A uniform horizontal load distributed along the entire height of the frame. 3. A triangular load distribution along the height of the frame. A numerical example of the calculation of a plane wind bracing with openings (calculation of one of the transverse walls of the plane wind bracings of a high building on "ploshchad' Vosstaniya" (Uprising Square) is shown.

1. Structures--Stresses--Mathematical analysis 2. Structures V. V. Pavlov --Stresses--Wind factors

Card 2/2

BASHKATOV, S.I.; TIMOLAYEV, V.A.; IVAFIN, N.A.; ROZOV, N.A.

Aluminum highway bridge. Avt. dor. 27 no.7:16-17 Jl '64.
(MIRA 17:12)

LYAPIN, Nikolay Ivanovich

Histological Changes of Some Glads of Internal Secretions in the Flow os the Annual Cycle of Life of "Alactaga Jaculus P." (Experimental-Morphological Research)

Dissertation for candidate of a Medical Science degree. Chair of Histology (head (CHL -) Correspondent "AMN" "SSSR", Prof. N.G. Kolosov) Defending in Soviet Saratov (Zooveterinarnogo) Institute, 1949

CHERNYAYEV, M.P.; NESTOROVICH, N.M.; LYAPIN, N.M.

Dmitrii Dmitrievich Mordukhai-Boltovskoi, 1876-1952. Usp.mat.nauk. 8 no. 4:131-139 Jl-Ag '53. (MLRA 6:8)
(Mordukhai-Boltovskii, Dmitrii Dmitrievich, 1876-1952)
(Mathematics--Bibliography) (Bibliography--Mathematics)

Lyapin, N.M.

1-FW

Lyapin, N. M. On a new trigonometric series for the radius of curvature of a normal section of the terrestrial ellipsoid. Rostov. Gos. Ped. Inst. Uč. Zap. no. 3 (1955), 89-94. (Russian)

If R denotes the radius of curvature, at a point M of the terrestrial ellipsoid, of a normal section of azimuth α, we have, by Euler's theorem:

$$1/R = \cos^2\alpha/\rho + \sin^2\alpha/p,$$

where ρ and p are, respectively, the radii of curvature of the meridional and latitudinal sections at N, and thus:

$$\rho = a(1-e^2)/(1-e^2\sin^2\varphi)^{3/2}, \quad p = a/(1-e^2\sin^2\varphi)^{\frac{1}{2}},$$

φ being the latitude of M.

Starting with those three formulas the author obtains, as a result of a considerable computational effort, the following series:

$$R = (\rho p)^{\frac{1}{2}} \left\{1 - \tfrac{1}{4}\cos^2\varphi \sum_{k=1}^{\infty} e^{2k}[\cos 2\alpha + \sin^k\alpha(1-\sin^{2k-2}\varphi)]\right\}.$$

M. A. Court (Norman, Okla.).

LYSENKO, A.Ya.; KALMYKOV, Ye.S.; FASTOVSKAYA, E.I.; BERDYYEV, Kh.B.; IVANENKO, A.K.; LYAPIN, P.D.

Principal results of three years' work for the extermination of malaria as a mass disease in the Tajik S.S.R. Sbor. rab. po mal. i gel'min. no.2:5-19 '59. (MIRA 15:3)
(TAJIKISTAN--MALARIA)

KALMYKOV, Ye.S.; BERDYYEV, Kh.B.; IVANENKO, A.K.; LYAPIN, P.D.

On the way to the complete elimination of malaria in the Tajik S.S.R. Zdrav. Tadzh. 7 no.1:14-17 Ja-F '60. (MIRA 13:5)

1. Iz Stalinabadskogo Instituta epidemiologii i gigiyeny i Respublikanskoy sanitarnoy epidemiologicheskoy stantsii Tadzhikskoy SSR.

(TAJIKISTAN--MALARIA--PREVENTION)

LYAPIN, P.D.; KOL'VAKH, S.P.

Preventive measures at the Shaartuz focus in 1961. Zdrav.Tadzh. 9 no.3:8-9 My-Je '62. (MIRA 15:8)
(SHAARTUZ--MALARIA--PREVENTION)

1. MITRYUKOVSKIY, V. M. , ENG. ; LYAPIN, P. K., ENG.

2. USSR (600)

4. Dynamos

7. Automatic starting of a reserve hydro-generator at lowered frequency. Elek. sta. 23. No. 9. 1952.

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

LYAPIN, S.Ye.

BARANOVA, I.V.; LYAPIN, S.Ye.; BARKOVSKIY, I.V., redaktor; KIRNARSKAYA, A.A., tekhnicheskiy redaktor.

[Algebraic problems for demonstration; teacher's manual] Zadachi na dokazatel'stvo po algebre; posobie dlia uchitelia. Leningrad, Gos.uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, Leningradskoe otd-nie, 1954. 159 p. (MLRA 8:3)
(Algebra--Problems, exercises, etc.)

LYAPIN, S.Ye.

GASTEVA, Serafim Alekseyevich; KREL'SHTEYN, Boris Il'ych; LYAPIN, Sergey Yevgen'yevich; redaktor; SHIDLOVSKAYA, Mariya Mechislavovna; CHAKHIREV, A.G., redaktor; MAKHUSHIN, V.A., tekhnicheskiy redaktor.

[Methods of teaching mathematics] Metodika prepodavaniia matematiki. Pod obshchei red. S.E.Liapina. Izd.3-e, ispr.Leningrad Gos.uchebno-pedagog.izd-vo Ministerstva prosveshcheniia RSFSR Leningradskoe otd-nie, 1955. 482 p. (MLRA 8:10)
(Mathematics--Study and teaching)

LYAPIN, S. Ye.

GASTEVA, S.O.; KREL'SHTEYN, B.I.; LYAPIN, S.Ye.; SHIDLOVS'KA, M.M.; KOPERSAK, G.D., redaktor; MONZHERAN V.F., tekhnichniy redaktor

[Methods of teaching mathematics; a manual for teachers and students in pedagogical schools] Metodyka vykladannia matematyky; posibnyk dlia vchyteliv i studentiv pedagogichnykh instytutiv. Za zahal'noiu red. S.IE.Liapina. Pereklad s druhoho, vypravlenoho rosiis'koho vydannia Uchpedhizu, zatverdzhenoho Ministerstvom osvity RRFSR. Kyiv, Derzh. uchbovo-pedagog. vyd-vo "Radians'ka shkola," 1956. 467 p. (MIRA 10:2)

(Mathematics--Study and teaching)

LYAPIN, Sergey Yevgen'yevich; GASTEVA, Serafima Alekseyevna; KVASNIKOVA, Zinaida Yakovlevna; KREL'SHTEYN, Boris Il'ich; CHAKHIREV, A.G., redaktor; LEONT'YEVA, L.A., tekhnicheskiy redaktor

[Methods of teaching mathematics; a manual for teachers of mathematics in classes 8-10 of the secondary schools] Metodika prepodavaniia matematiki; posobie dlia uchitelei matematiki 8-10 klassov srednei shkoly. Leningrad, Gos.uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, Leningradskoe otd-nie. Pt.2. 1956. 653 p.
(MLRA 10:2)

(Mathematics--Study and teaching)

ANDRONOV, I.K., professor; BEREZANSKAYA, Ye.S.; GLAGOLEV, N.S.; DEPMAN, I.Ya., professor; ZOLOTOVITSKIY, Ye.N.; IL'IN, A.Ye., dotsent; LYAPIN, S.Ye., MULYARCHIK, M.Z., uchitel'; PETRAKOV, I.S.; CHICHIGIN, V.G.

Aleksandr Nikolaevich Barsukov. Mat. v shkole no.1:72-74 Ja-F '57. (MLRA 10:2)

1. Moskovskiy oblastnoy pedagogicheskiy institut (for Andronov). 2. Zaveduyushchiy kafedroy metodiki matematiki Moskovskogo pedagogicheskogo instituta imeni V.I. Lenina (for Berezanskaya). 3. Metodist Shcherbakovskogo rayona goroda Moskvy (for Glagolev). 4. Leningradskiy pedagogicheskiy institut (for Depman). 5. Metodist Balashikhinskogo rayona Moskovskoy oblasti (for Zolotovitskiy). 6. Moskovskiy pedagogicheskiy institut imeni V.I. Lenina (for Il'in. 7. Zaveduyushchiy kafedroy metodiki matematiki Leningradskogo pedagogicheskogo instituta imeni A.I. Gertsena (for Lyapin). 8. Shkola No.29 goroda Moskvy (for Mulyarchik). 9. Zaveduyushchiy kabinetom matematiki Moskovskogooblastnogo instituta usovershenstvovaniya uchiteley (for Petrakov). 10. Zaveduyushchiy kafedroy metodiki matematiki Moskovskogo pedagogicheskogo instituta imeni V.P. Potemkina (for Chichigin).
(Barsukov, Aleksandr Nikolaevich, 1891-)

BEREZANSKAYA, Ye.S.; GUREVICH, G.B.; DITSMAN, A.P. (Moskva); BUDANTSEV, P.A. (Orenburg); KUKOLEV, V.G. (Perm'); LYAPIN, S.Ye. (Leningrad); PRINTSEV, N.A. (Kursk)

Discussion of the new mathematics curricula. Mat. v shkole no.2:5-20 Mr-Ap '59. (MIRA 12:6)
(Mathematics--Study and teaching)

LYAPIN, S.Ye.

Graphic solution of exponential and logarithmic equations. Uch.zap. Ped.inst.Gerts. 218:213-258 '61. (MIRA 14:10)
(Algebra--Graphic methods)

POTOTSKIY, Mikhail Vladimirovich; BESKIN, N.M., dots., retsenzent; VEYTSMAN, I.B., retsenzent; GIBSH, I.A., dots., retsenzent [deceased]; LYAPIN, S.Ye., prof., retsenzent; NAGIBIN, F.F., dots., retsenzent; MENCHINSKAYA, N.A., prof., retsenzent; UMANSKIY, G.S., red.; MAKAROVA, N.F., tekhn. red.

[Pedagogical basis of the teaching of mathematics; a manual for teachers] O pedagogicheskikh osnovakh obucheniia matematike; posobie dlia uchitelei. Moskva, Uchpedgiz, 1963. 198 p. (MIRA 17:1)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR (for Menchinskaya).

ACCESSION NR: AP4028446 S/0181/64/006/004/1158/1166

AUTHORS: Lyapin, V. G.; Tolpy*go, K. B.

TITLE: Investigation of the dispersion law E (k) in the hold bands of diamond type crystals for symmetrical directions

SOURCE: Fizika tverdogo tela, v. 6, no. 4, 1964, 1158-1166

TOPIC TAGS: energy dispersion, hole band, diamond structure, crystal energy, wave function

ABSTRACT: The authors studied the energy of diamond-type crystals with single electrons removed. They sought to obtain a wave function corresponding to those in previous works (K. B. Tolpy*go and A. M. Fedorchenko, ZhETF, 31, 845, 1956; Yo. I. Kaplunova, FTT, 1, 177, 1959) in the form of a linear combination of antisymmetrized products of functions of individual sigma bonds, with an electron being absent at one such bond. In neglecting spin-orbit interaction, the secular equation relative to the energy of the crystal for the directions Δ and Λ of the wave vector is examined. The authors preserve the same matrix elements of the Hamiltonian as Kaplunova but without the assumption of orthogonality of one-electron functions forming the sigma bond. The analytical dependence of E (k) at

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ACCESSION NR: AP4028446

arbitrary values of |k| is found for several energies at the edge of the Brillouin band at the points X_4 and L_3, for germanium and silicon. The agreement with existing data is good. Slight variations are thought to be due to simplifications in the theory: neglect of deeper levels in constructing a function for an atom with a vacancy, and neglect of integrals of nonorthogonality between the more distant orbits and the matrix elements of transition for even more distant neighbors. For greater precision it would be necessary to know the wave functions at great distances from the nucleus, but this would not eliminate the effect of neighbors, and the use of functions of isolated atoms is thus unsystematic. Orig. art. has: 1 figure, 1 table, and 24 formulas.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko (Kiev State University)

SUBMITTED: 05Nov63

ENCL: 00

SUB CODE: SS, EC

NO REF SOV: 007

OTHER: 008

Card 2/2

ACC NR: AP6036949 (A,N) SOURCE CODE: UR/0181/66/008/011/3156/3162

AUTHOR: Lyapin, V. G.; Tolpygo, K. B.

ORG: Kiev State University im. T.G. Shevchenko (Kievskiy gosudarstvennyy universitet)

TITLE: Choice of basic functions in the theory of valence bands in diamondlike crystals

SOURCE: Fizika tverdogo tela, v. 8, no. 11, 1966, 3156-3162

TOPIC TAGS: valence band, semiconductor band structure, semiconductor theory

ABSTRACT: The article analyzes the requirements for a choice of basic functions in the many-electron theory of valence bands of diamondlike semiconductors. A theory developed earlier by the authors which predicts the existence of eight doubly spin-degenerated valence bands (neglecting the spin-orbit interaction) is compared with other theories (utilizing the method of strong coupling, or operating with bonding and antibonding equivalent orbitals) which yield only four valence bands. Additional valence bands are obtained by using various space functions (centered on different atoms of the unit cell) for electrons forming σ bonds with opposite spins, which makes it possible to allow for the correlation in their motion. The identity relationships obtained from the proposed theory and tying the energy values at symmetrical points of the Brillouin zone to the cyclotron constants and the lattice constant

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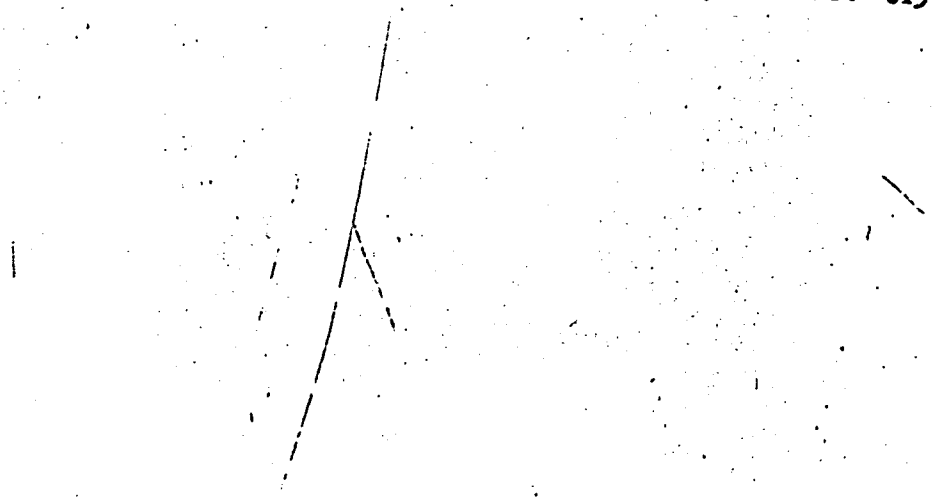
ACC NR: AP6036949

are satisfactorily fulfilled for silicon and germanium. Orig. art. has: 1 table and 10 formulas.

SUB CODE: 20/ SUBM DATE: 10Jan66/ ORIG REF: 004/ OTH REF: 015



Card 2/2

ACC NR: AP7005843 SOURCE CODE: UR/0181/66/008/012/3567/3570

AUTHOR: Lyapin, V. G.

ORG: Kiev State University im. T. G. Shevchenko (Kiyevskiy gosudarstvennyy universitet)

TITLE: On the nature of the long-wave "tail" in the x-ray emission spectra of diamond-type crystals

SOURCE: Fizika tverdogo tela, v. 8, no. 12, 1966, 3567-3570

TOPIC TAGS: semiconductor band structure, x ray emission, x ray spectrum, crystal lattice structure, cyclotron resonance

ABSTRACT: The results of a many-electron theory of the band structure of diamond-like semiconductors previously developed by the author (with K. B. Tolpygo, FTT v. 8, 3156, 1966 and v. 6, 1158, 1964) are used to determine the width of the hole band in Si and Ge. A relation is established on the basis of this theory between the difference in the energy levels of the hole, on the one hand, and the lattice period and with the cyclotron-resonance constants, on the other. This yields values of 18.0 and 22.8 ev for the level differences of silicon and germanium, respectively. The most probable variants of the band structure agreeing with this energy difference are determined, It is shown that other investigators obtained much lower energy differences and therefore concluded incorrectly that the long-wave "tail" of the spectrum has characteristics different from the short-wave section. Actually, both sections

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ACC NR: AP7005843

are components of the ground-state band and are due to transitions between the x-ray and deeper levels of the hole band. The author thanks K. B. Tolpygo for interest in the work. Orig. art. has: 1 figure and 2 formulas.

SUB CODE: 20/ SUBM DATE: 12May66/ ORIG REF: 003/ OTH REF: 011

Card 2/2

UVAROV, O.V.; SOKOLOV, N.M.; LYAPIN, V.V.; ZHAVORONKOV, N.M.

Coefficients of separation of the carbon isotopes C^{12} - C^{14} during the equilibrium vaporization of methane. Zhur. VKHO 7 no.6:695-697 '62. (MIRA 15:12)

1. Nauchno-issledovatel'skiy fiziko-tekhnicheskiy institut imeni L.Ya. Karpova.

(Methane)
(Carbon--Isotopes)
(Evaporation)

LYAPIN, Vasiliy Yevdokimovich; GIRSHKAN, I.A., red.; FEL'DSHTEYN, B.S., tekhn.red.

[Using slotted baffles as energy-dissipation works] Gasiteli energii v vide proreznykh stenok. Moskva, Gos.energ.izd-vo, 1960. 42 p. (MIRA 13:3)
(Hydraulic engineering)

LYAPIN, Ye.N.

TRET'YAKOVA, L.I.; LYAPIN, Ye.N.

Minutes of the 17th and 18th sessions of the Leningrad and Leningrad Province Society of Oncologists. Vop.onk. 3 no.4:508-512 '57.
(TUMORS) (MIRA 10:11)

LYAPIN, Ye. S.

Meteorological Abstract
Vol. 4, No. 2
February, 1953
Bibliography on
Turbulent Exchange

4B-137 Geo 551.551:551.524.4

Liapin, E. S., Zavisimost' koefitsienta peremeshivaniia ot vertikal'nogo raspredeleniia temperatury vozdukha. /Dependence of the coefficient of mixing on the vertical distribution of air temperature./ U.S.S.R. Glavnoe Upravlenie Gidrometeorologicheskoi Sluzhby, Trudy Nauchno-issledovatel'skikh Uchrezhdenii Ser. 1, Meteorologiia, No. 34, Fizika Prizemnogo Sloia Atmosfery, p. 3-17, 1946. fig., 13 eqs. DLC—1. Influence of turbulent mixing on the temperature of the air. 2. On the translation of energy in the atmosphere and resulting mixing. 3. Total kinetic energy transformed into internal and potential energy as a result of mixing. 4. On the kinetic energy of moving air. 5. Second correlation between coefficient of mixing and mixing parameter." 6. Formula for coefficient of mixing. 7. Coefficient of mixing with various temperature gradients in the atmosphere. (Same item as 46-9, Oct. 1948, American Meteorological Society, Bulletin.) Subject Headings: 1. Exchange coefficient 2. Atmospheric turbulence.—M. R.

LYAPIN, E. S.

Meteorological Abstract
Vol. 4, No. 2
February, 1953
Bibliography on
Turbulent Exchange

4B-136

551.551

Liapin, E. S., Izuchenie koefitsienta peremeshivaniia vozdukha pri pomoshchi opytnykh dymopuskov. [A study of coefficient of mixing of air by means of experimental smoke ejection.] U.S.S.R. Glavnoe Upravlenie Gidrometeorologicheskoĭ Sluzhby, Trudy Nauchno-issledovafel'skikh Uchrezhdenii Ser. 1, Meteorologiia, No. 34, Fizika Prizemnogo Sloiia Atmosfery, p. 69-76, 1946. 4 figs., eqs. DLC —Theoretical and experimental results of turbulent mixing under varying meteorological conditions and underlying surface conditions as determined from concentration of smoke found at varying elevations and distances from the source. (Same item as 46-8, Oct. 1948, American Meteorological Society, Bulletin.) Subject Headings: 1. Exchange coefficient 2. Turbulence measurement. 3. Smoke dispersion.—M. R.

5/6/54

LYAPIN, Ye. S. 166T81

USSR/Meteorology - Turbulence Sep/Oct 48

"Turbulent Mixing of Air in the Atmosphere," Ye. S. Lyapin

"Meteorol i Gidrol" No 5, pp 13-23

Derives equation for turbulent mixing of air in the atmosphere. System of differential equations obtained differs from the Fick equation in that it is hyperbolic rather than parabolic. However, detailed analysis shows solution of both equations is numerically close in a number of cases. Submitted 1 May 48.

166T81

LYAPIN, Ye. S. and YUDIN, M. I. (Editors)

"Works of the Main Geophysical Observatory," 1949

Symposium of nine authors - twelve reports on problems of atmospheric turbulence.

B-75897

LYAPIN, E. S.

Meteorological Abst.
Vol. 4 No. 2
Feb. 1953
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4B-226 O giperbolicheskom uravnenii vertikal'nogo turbulentnogo obmena v atmosfere. Liapin, E. S. [Hyperbolic equation of vertical turbulent exchange in the atmosphere.] *Leningrad. Glavnaia Geofizicheskaia Observatoriia, Trudy*, 19(81):175–184, 1950. 2 figs., 8 refs., 15+eqs. DLC—Theoretical treatment. *Subject Headings:* 1. Turbulent exchange 2. Turbulence theory.

EH
6-11-54

LYAPIN, YEVGENI' S.

"Some Properties of the Decompositions of Abelian Groups without Torsion Into Direct Sums"

"On the Decomposition of Countable Abelian Groups Without Torsion Into Direct Sums of Groups of The First Rank", Dok. AN, 24, No. 1, 1939. Insto. of Math. and Mechanics; Leningrad Univ., C1939-.

LYAPIN, E.

Mathematical Reviews
Vol. 14 No. 10
Nov. 1953
Algebra

6-23-54
LL

Lyapin, E. Systems with an infinite operation. Doklady Akad. Nauk SSSR (N.S.) 50, 49–51 (1945). (Russian)

Let φ be a mapping of an ordered set $\mathfrak{A}$ of indices into a given set $\mathfrak{M}$; the set $\mathfrak{A}$ considered together with the map φ is called a word of the set $\mathfrak{M}$; the length of the word is the cardinal of $\mathfrak{A}$. Given a transfinite number α, the collection of all words of $\mathfrak{M}$ with lengths less than $\aleph_\alpha$ is denoted by $\mathfrak{W}^\alpha(\mathfrak{M})$. An operation in $\mathfrak{M}$ is a law determining a collection of so-called admissible words of $\mathfrak{M}$ such that to each admissible word W is associated a non-empty subset of $\mathfrak{M}$ called the composite of W and denoted by $[W]$. A set together with an operation defined in it is called a system. If $\mathfrak{H}$ is a subset of a system $\mathfrak{G}$, the properties of the subsystem $\{\mathfrak{H}\}$ generated by $\mathfrak{H}$ and a transfinite construction for $\{\mathfrak{H}\}$ are studied. In a system $\mathfrak{G}$, let $\mathfrak{G}^*$ be the collection of all elements not belonging to any composite of a word of $\mathfrak{G}$. A system $\mathfrak{G}$ belongs to the class Ω^α provided $\mathfrak{W}^\alpha(\mathfrak{G})$ is the set of all admissible words of $\mathfrak{G}$; a system $\mathfrak{G}$ of class Ω^α belongs to the class Γ^α provided $\{\mathfrak{G}^*\} = \mathfrak{G}$ and every element of $\mathfrak{G}$ belongs to the composite of no more than one word. A transfinite construction is given, yielding all systems of class Γ^α; furthermore, if α and the cardinals $\mathfrak{m}$ and $\mathfrak{n}$ are prescribed, a system $\mathfrak{G}$ in Γ^α exists for which $\mathfrak{G}^*$ has cardinal $\mathfrak{n}$ and the cardinal of the composite of every admissible word is $\mathfrak{m}$. Every subsystem of a system of class Γ^α belongs to Γ^α. A mapping φ of a system $\mathfrak{H}$ onto a system $\mathfrak{H}$ is called a perfect homomorphism provided, for every word W of the system $\mathfrak{G}$, $[\varphi W] = \varphi[W]$ (where a natural extension of notation interprets the symbol φW). To each system of class Ω^α there is a system of class Γ^α which has a perfect homomorphism onto the given system. *R. A. Good.*

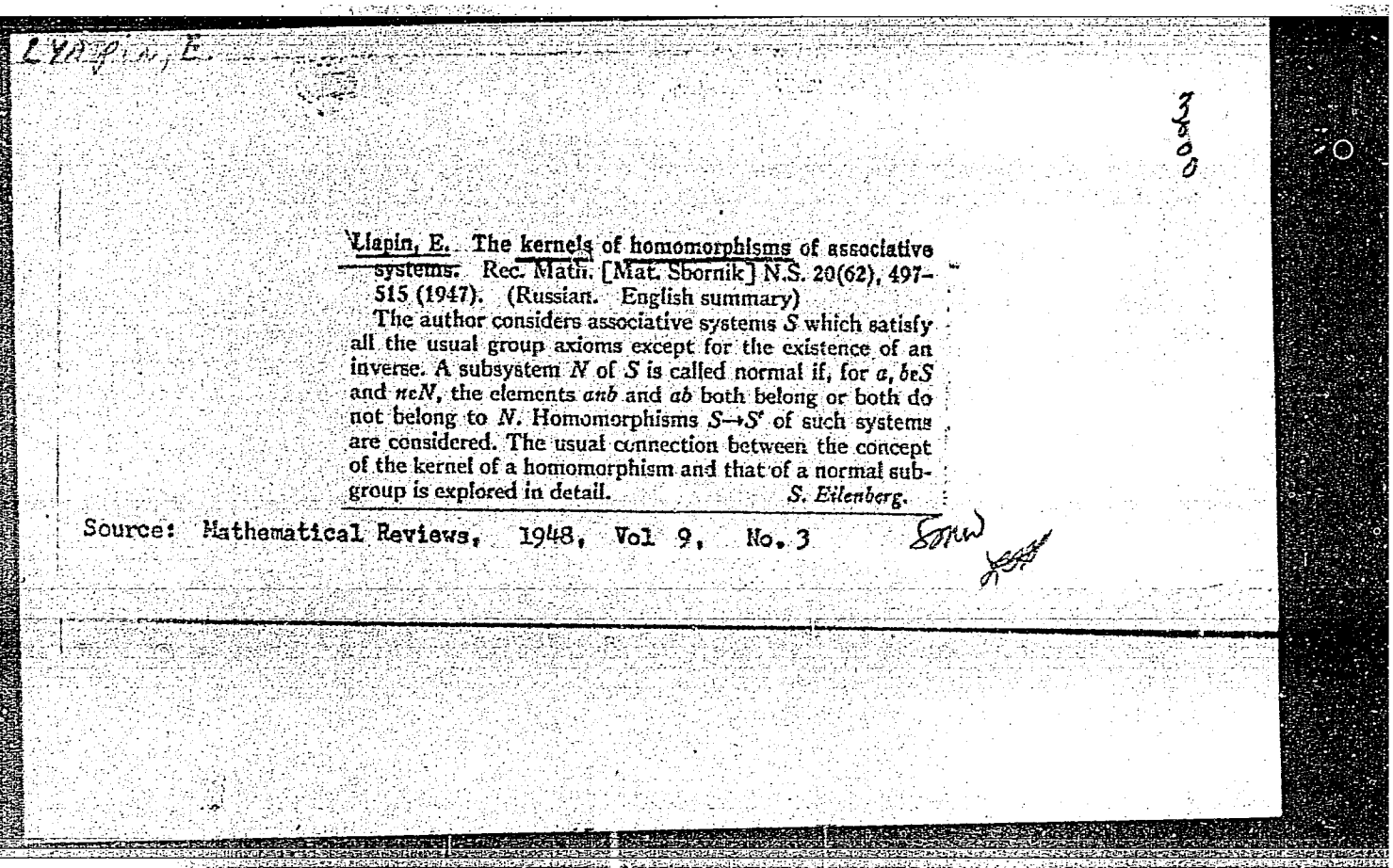
math (1) 2000

LYAPIN, Ye. S.

Liapin, E. Free systems with an infinite univalent operation. C. R. (Doklady) Acad. Sci. URSS (N.S.) 51, 493–496 (1946).

Multiplicative systems, in which words of transfinite length may occur, are considered. If Ξ is a class of such systems, $S \in \Xi$ and $A \subset S$, then A is said to be a free complex with respect to the class Ξ if, for every $R \in \Xi$, every map $A \to R$ can be extended to a homomorphism $S \to R$. If the free complex A generates S then S is said to be free with respect to Ξ. Several propositions concerning these concepts are stated without proof. *S. Eilenberg.*

Source: Mathematical Reviews, Vol 8 No. 9



Lyapin, E.

3500

Lyapin, E. The kernels of homomorphisms of associative systems. Rec. Math. [Mat. Sbornik] N.S. 20(62), 497–515 (1947). (Russian. English summary)

The author considers associative systems S which satisfy all the usual group axioms except for the existence of an inverse. A subsystem N of S is called normal if, for $a, b \in S$ and $n \in N$, the elements anb and ab both belong or both do not belong to N. Homomorphisms $S \to S'$ of such systems are considered. The usual connection between the concept of the kernel of a homomorphism and that of a normal subgroup is explored in detail. *S. Eilenberg.*

Source: Mathematical Reviews, 1948, Vol 9, No. 3

LYAPIN, E. S. ALPEBRAICHESKIE
25342

Sistemy S. Neskolbkimi Deystviyami Uchen Zapiski
(Leningr. Gos. Ped. In-T Im Gertsena), T. LXIV, 1948, S. 53-72

SO: LETOPIS NO. 30, 1948

Lyapin, E. S.

Lyapin, E. S. Normal complexes of associative systems. Izvestiya Akad. Nauk SSSR. Ser. Mat. 14, 179–192 (1950). (Russian)

The author continues his study of associative systems [Rec. Math. [Mat. Sbornik] N.S. 20(62), 497–515 (1947); these Rev. 9, 134], no longer assuming a unit element. Normal subsystems are defined as by Siverceva [Mat. Sbornik N.S. 24(66), 101–106 (1949); these Rev. 10, 508]. A normal complex K in a system A is a subset such that for $x, y \in A$ and $k, k' \in K$, $xky \in K$ implies $xk'y \in K$, $xk \in K$ implies $xk' \in K$, $ky \in K$ implies $k'y \in K$. In a homomorphism, the inverse images of elements are normal complexes, and conversely for any normal complex there exists a corresponding homomorphism. If the homomorphism is onto a system with unit or zero, respectively, the kernel is a normal subsystem or ideal, respectively. If $\{A_i\}$ are systems with 0, their "mutually annihilating" sum is defined by taking the set-theoretic union, preserving the product in each A_i, and making the product 0 between different A's. Every system with 0 has a unique decomposition of this kind into indecomposable parts. The normal complexes, subsystems and ideals of a mutually annihilating sum are studied.

I. Kaplansky (Chicago, Ill.).

Source: Mathematical Reviews, 1950 Vol 11 No. 8

Lyapin Yevgeniy S.

Lyapin, E. S. Semisimple commutative associative systems. Izvestiya Akad. Nauk SSSR. Ser. Mat. 14, 367–380 (1950). (Russian)

A commutative associative system (herein abbreviated "system") is called semisimple provided it possesses no normal complexes other than ideals and single elements. Compare terminology in reviews of earlier papers [same vol., 179–192, 275–282 (1950); these Rev. 11, 575; 12, 5]. A system is semisimple if and only if it possesses no homomorphisms other than isomorphisms or ideal-homomorphisms. The latter is a mapping, as described by Rees, upon a difference semigroup modulo an ideal [Proc. Cambridge Philos. Soc. 36, 387–400 (1940); these Rev. 2, 127]. If $\mathfrak{A}$ and $\mathfrak{B}$ are systems, $\mathfrak{A}=\mathfrak{B}\cup E$, where E is the identity element of $\mathfrak{A}$ and $E\notin\mathfrak{B}$, then $\mathfrak{A}$ is obtainable from $\mathfrak{B}$ by exterior adjunction of an identity. A semisimple system with an identity either is a cyclic group with order one or a prime, or is of order two, or is obtainable by exterior adjunction of an identity to a semisimple system without an identity; the converse is false. Whenever elements A, B in a system $\mathfrak{A}$ satisfy $A=AB$, then B is called a partial identity for A. A semisimple system is decomposable, and uniquely so, as a mutually-annihilating sum of indecomposable semisimple systems. The four principal theorems classify all semisimple systems (other than groups) by giving necessary and sufficient conditions that a system belong to one of the following four types: (1) semisimple, containing an identity; (2) semisimple, containing no identity, indecomposable; (3) semisimple, decomposable, every element possessing a partial identity; (4) semisimple, decomposable, at least one element possessing no partial identity.

R. A. Good (College Park, Md.).

Source: Mathematical Reviews, Vol 12, No. 3

End

LYAPIN, E. S.

Mathematical Reviews
May 1954
History

Lyapin, E. S. **Associative systems of all partial transformations.** Doklady Akad. Nauk SSSR (N.S.) 88, 13–15; errata 92, 692 (1953). (Russian)

Etant donné un système associatif (=demigroupe), c'est-à-dire, un ensemble $\mathfrak{U}$ muni d'une multiplication partout définie associative, on dira que $\mathfrak{U}$ est de classe Σ_1 lorsque les quatre conditions suivantes sont remplies: 1) $\mathfrak{U}$ admet un élément nul 0; 2) le produit de deux idempotents différents est toujours 0; 3) pour tout $a \in \mathfrak{U}$ il existe deux idempotents e, j tels que $ea=aj=a$; 4) quels que soient les idempotents e, j il existe $a \neq 0$ tel que $ea=aj=a$. On dira que $\mathfrak{U}$ est de classe Σ_2 lorsque, quels que soient $x, y \in \mathfrak{U}$, $xy=x$ ou $xy=y$. Ces deux définitions ainsi que celle d'idéal "dense dans $\mathfrak{U}$" permettent d'énoncer les deux caractérisations abstraites suivantes: Pour que $\mathfrak{U}$ soit isomorphe au demigroupe constitué par toutes les relations biunivoques d'un certain ensemble dans lui-même (la multiplication étant identifiée à la composition des relations), il faut et il suffit que $\mathfrak{U}$ possède un idéal dense de classe Σ_1. Pour que $\mathfrak{U}$ soit isomorphe au demigroupe constitué par toutes les applications d'un certain ensemble dans lui-même, il faut et il suffit que $\mathfrak{U}$ possède un idéal dense de classe Σ_2. Ce dernier résultat n'est qu'une modification d'un résultat analogue de Malcev [Mat. Sbornik N.S. 31(73), 136–151 (1952); ces Rev. 14, 349].

J. Riguet (Paris).

Lyapin, E. S.

Math

Lyapin, E. S. Canonical form of elements of an associative system given by defining relations. *Leningrad. Gos. Ped. Inst. Uč. Zap.* 89 (1953), 45–54. (Russian)

The auther first sketches the theory of semigroups (sets with a binary associative operation defined by generators and relations. He then considers the semigroup P with generators u, v, e and the relations $ue=eu=u$, $ve=ev=v$, $e^2=e$, $vu=e$. Clearly every element of P has the form $u^\alpha v^\beta$ $(\alpha, \beta=0, 1, 2, \cdots)$. It is proved that $u^\alpha v^\beta=u^\gamma v^\delta$ only if $\alpha=\gamma$ and $\beta=\delta$. P has only the trivial automorphism, and only one anti-automorphism, given by $u^\alpha v^\beta \to u^\gamma v^\alpha$.

E. Hewitt (Seattle, Wash.).

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LYAPIN, Ye.S.

Augumentative elements of associative systems. Uch. zap. Ped. inst. Gerts. 89:55-65 '53. (MIRA 11:3)

(Aggregates)

LYAPIN, Ye. S.
USSR/Mathematics - Fixed points FD-455

Card 1/1 : Pub. 64 - 7/11

Author : Lyapin, Ye. S. (Leningrad)

Title : Subgroups in all representations of which the operators possess fixed points. I

Periodical : Mat. sbor., 34 (76), 289-306, Mar/Apr 1954

Abstract : Treats a certain class of subgroups which includes in particular such important subgroups as (a) the subgroup of operators of approximation of a complete metric space, and (b) the subgroup of continuous operators using A. N. Tikhonov's principle.

Institution :

Submitted : March 25, 1953

LYAPIN, Yevgeniy Sergeyevich; KAPUSTINA, V.S., redaktor; RYBIN, M.V., tekhnicheskiy redaktor.

[Course in higher algebra] Kurs vysshei algebry. Izd.2-e, perer. Moskva, Gos.uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1955. 367 p. (Algebra) (MLRA 9:5)

LYAPIN, Ye. S.

USSR

LYAPIN, E.S.

Lyapin, E. S. Semigroups in all of whose representations the operators have fixed points. II. Mat. Sb. N.S. 36(78), 111–124 (1955). (Russian)

This is the second part of an earlier article by the same author under the same title [Mat. Sb. N.S. 34(76), 289–306 (1954); MR 15, 830]. In the first part, the author exhibited a "basic class" P_0 of the class P of all semigroups described in the title. In the present paper, the author shows how to construct all possible basic classes of P. If a semigroup $\mathfrak{A}$ is represented in two ways as right-annihilating products,

$$\mathfrak{A}=\mathfrak{B}_1\underset{\varphi_1}{\times}\mathfrak{M}_1=\mathfrak{B}_2\underset{\varphi_2}{\times}\mathfrak{M}_2,$$

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OVER

LYAPIN, E., S.

where $\mathfrak{M}_1$ and $\mathfrak{M}_2$ are both cyclic, then $\mathfrak{M}_1=\mathfrak{M}_2$, $\mathfrak{B}_1\cong\mathfrak{B}_2$, and for $M_1\in\mathfrak{M}_1$, $M_2\in\mathfrak{M}_2$ we have $\phi_1M_1=\phi_1M_2$ if and only if $\phi_2M_1=\phi_2M_2$. The uniquely determined cyclic subsemigroup $\mathfrak{M}_1$ of $\mathfrak{A}$ is called the nucleus of $\mathfrak{A}$. Two semigroups $\mathfrak{A}_1$ and $\mathfrak{A}_2$ having nuclei $\mathfrak{M}_1$ and $\mathfrak{M}_2$ resp. are called conjugate if there exists a subsemigroup of $\mathfrak{A}_1$ containing $\mathfrak{M}_1$ and isomorphic with $\mathfrak{A}_2$, and vice-versa. An explicit description is given of every semigroup which is conjugate with some member of P_0. Two classes Q_1 and Q_2 of semigroups containing nuclei are called conjugate if each member of Q_1 is conjugate with one and, to within isomorphism, only one member of Q_2, and vice-versa. The main theorem then is: a class of semigroups is a basic class of P if and only if it is conjugate with P_0. *A. H. Clifford* (Baltimore, Md.).

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LYAPIN, Ye.S.

Abstract characteristics of certain transformation semigroups. Uch. zap.Ped.inst. Gerts.103:5-28 '55. (MLRA 10:3)
(Groups. Theory of)