

... TRAUOGOTT, N.N.; BALONOV, L.Ya.

Neurophysiological analysis of certain depressive syndromes. Zhur.
nerv. i psikh. 61 no. 1:91-98 '61. (MIRA 14:4)

1. Institut evolyutsionnoy fiziologii imeni I.M. Sechenova (dir.-akad.
L.A. Orbeli [deceased] AN SSSR, Leningrad.
(DEPRESSION, MENTAL)

TRAUGOTT, N. V.; BALONOV, L. Ya.; KAUFMAN, D. A.; PEYMER, I. A. (Leningrad)

K voprosu ob izmeneniyakh vysshey nervnoy deyatel'nosti cheloveka
obuslovlennykh ugneteniem voskhodyashchikh aktiviruyushchikh sistem mozga

report submitted for the First Moscow Conference on Reticular Formation,
Moscow, 22-26 March 1960.

TRAUGOTT, N.N.

Specific features of the auditory function during disorders in the activity of the cortical section of the auditory analyzer in children. Probl.fiziol.akust. 4:201-207 '59. (MIRA 13:5)

1. Institut evolyutsionnoy fiziologii imeni I.M. Sechenova, Lenin-grad.

(APHASIA)

(CHILDREN--DISEASES)

1st AND 2ND ORDERS PROCESSED AND PREPARED IN THE

114

CA

Synthesis of phosphorylated pyridoxal by animal tissues. A. V. Traufanov, V. A. Kirsanov, and Z. I. Nokolov'sva (Acad. Med. Sci. USSR, Moscow). *Biochimiya*, 12, 482-0(1947); cf. C.A. 20, 956; 41, 7486c. — *In vitro* formation of codecarboxylase occurs on incubating pyridoxine in Ringer phosphate soln. at pH 7.2 and 37° with fat-tissue slices (small intestine, kidney, liver, heart, skeletal muscle, brain). In contrast to the synthesis of flavin adenine dinucleotide, phosphorylated pyridoxal is synthesized in the absence of whole cells. Max. synthesis is achieved with a concn. of 2.5 mg. pyridoxine/g. of tissue. Pyridoxine when introduced into the organism behaves like thiamine, riboflavin, and nicotinic acid; in order to fulfill its biocatalytic function, it must first be transformed into the coenzyme, in this instance, into codecarboxylase. H. Priestley

ABSTRACT METALLURGICAL LITERATURE CLASSIFICATION

1st AND 2ND ORDERS PROCESSED AND PREPARED IN THE

TRAUNER, L., Dr.; MIHOLIC, S., dr.; GRMEK, D., dr.

Iodine medical bath Sisak. Lijec. vjes. 77 no.10-12:
533-540 Oct-Dec 55.

(BALNEOLOGY,
Sisak iodine bath. (Ser))

The catalytic activity of mineral
catalysts based on transition
metal ions

UNICEF
Ludwigshafen
N. Plavsk

2

234

TRAVELER

YUGO

Mineral waters in Croatia. S. Miholic and L. Trnber.
Godišnjak balneol. klimatol. inst. (Zagreb, Yugoslavia) 5: 69-133(1952).—Chem. analyses and the physiol. properties
of 29 mineral waters are given. N. Playlic

10

yes

CA

117

Electrolyte therapy (Sepdalen 7) and vegetative regulation in rheumatic disease. L. Trauner. (Inst. Balneol., Zagreb, Yugoslavia). *Z. Rheumaforsch.* 10, 383-7(1951).— White rats were given orally 0.5 g. Sepdalen 7 (I) for 9 days. On the third day the joints were infiltrated with formalin and the swelling of the joints was strongly reduced as compared to rats without I treatment. The clinical results in rheumatic diseases of man were similar to those obtained with natural mineral waters of similar compn. I contained 35% Na₂SO₄, 10 Na₂CO₃, 17 Na phosphates, Na citrates and tartrates, and free citric and tartaric acids. B. Lustig .

TRAUNER, R. (Graz)

Corrective operation on lip & nose in harelip & cleft palate. Acta
chir. orthop. tramm. tech. 24 no.6:453-458 Nov 57.

(CLEFT PALATE, compl.

harelip, corrective surg. on lip & nose (Cz))

TRAUNFELNER, Zdzislaw

Problem of medical latin. Polski tygod. lek. 12 no.10:370-371
4 Mar 57.

1. Adres: Opole ul. Kosnego 51. Szpital Wojewodzki.
(NOMENCLATURE
use of latin in med. terminology (Pol))

TRAUNFELLNER, Zdzislaw, lek. med.; WEDRYCHOWICZ, Adam.

Chronic epithelioma in a male subject. Pol. arch. med. wewnet.
35 no.2:249-253 '65

1. Z Zakladu Anatomii Patologicznej (Kierownik: lek. med.
Z.Traunfellner) i z Oddzialu "A" Chorob Wewnetrznych Szpitala
Wojewodzkiego w Opolu (Ordynator: dr. med. S. Syc).

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001756510011-4

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001756510011-4"

FEDICH, Wojciech; TRAUNFELNER, Zdzislaw

Unusual course of endocarditis lenta. Polski tygod. lek. 9 no.11:
333-336 15 Mar 54.

1. Z oddzialu chorob wewnetrznych; ordynator dr med. Janina Bross,
i z prosektury Szpitala Wojewdzkiego w Opolu.
(ENDOCARDITIS, SUBACUTE BACTERIAL, complications,
subdural hemorrh.)
(CEREBRAL HEMORRHAGE,
subdural, in endocarditis, subacute bact.)

TRAUNFELLNER, Zdzislaw

SURNAME, Given Names

Country: Poland

Academic Degrees: [not given]

Affiliation: Prosectorium of the K Miarek Wojewodztwo Hospital (Prosektorium, Szpital Wojewodzki im K Miarek), Opole; Director (Dyrektor): Dr B Glazer

Source: Krakow, Przeglad Lekarski, Vol XVII, Ser II, No 9, 1961, pp 348-349

Data: "The Work of the Prosectorium of the K Miarek Wojewodztwo Hospital in Opole, 1952-1959."

690 981643

ONISK, Jerry; TRAUNFELLNER, Zdzislaw

Heart injury caused by petard explosion. Pol. tyg. lek. 19 no.15:
563-565 6 Ap '64.

1. Z Oddziału "E" Chorob Wewnętrznych (ordynator: dr. med. W. Pedich)
i z Pracowni Anatomiczno-Patologicznej (kierownik: Z. Traunfellner) Szpi-
tala Wojewódzkiego im. K. Miarki w Opolu.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

THE AND "IN CODES"

PROCESSES AND PROPERTIES INDEX

F

1847. CALCULATION OF GAS YIELDS FROM COAL GASIFICATION. Traunstei,
S. and Gumz, W. (Bergbau u. Energie, 1949, vol. 2, 69-75;
abstr. in chem. abstr., 1949, vol. 43, 7665). The
approximate calculation of equilibrium for gasification
at atmospheric pressures based on the equilibrium of the
decomposition of CO₂ and H₂O. The formation of CH₄
is considered briefly.

CA

GENERAL INDEX

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

FROM INITIALS

FROM NUMBER

FROM LETTER

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

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1ST AND 2ND COLUMNS PROCESSES AND PROPERTIES INDEX 3RD AND 4TH COLUMNS

COMMON ELEMENTS

MATERIALS INDEX

7978* The Efficiency of Heat Engines. W. Traupel. *Engineers' Digest*, v. 12, Apr. 1951, p. 117-119; May 1951, p. 149-152. (Translated and condensed from *Teknisk Tidsskrift*, v. 80, Dec. 18, 1950, p. 1157-1164.)

Describes a new method for practical calculation of thermal efficiency of heat machines operating with one or several working media. Evaluation of the entropy of reversible and irreversible processes is treated in detail. The working cycles of 6 different types of heat machines are analyzed and compared, and results are used to assess the possibilities of improvement of the different cycles.

METALLURGICAL LITERATURE CLASSIFICATION

WELLSSTONE

COMMON VARIABLES INDEX

1ST AND 2ND COLUMNS 3RD AND 4TH COLUMNS

TRAUSANU, D.

Air conditioning in airplanes.

P. 23(Revista Transporturilor. Vol. 3, no. 1, Jan. 1956, Bucuresti, Rumania)

Monthly Index of East European Accessions (EFAI) I.C. Vol. 7, no. 2,
February 1958

TRAUSANU, D.

Anodic mechanical cutting of metals. p.62. (ELECTROTEHNICA, Bucuresti, Vol. 1, No. 1/2, Jan./Feb. 1953)

SO: Monthly List of East European Accessions, (EEAL), LC, Vbl. 4, No. 6, June 1955, Uncl.

TRAUSMILLER, O

TRAUSMILLER O.

Pitanje helmintijaza i protozoarnih infekcija kod djece.
/Helminthiasis and protoziasis in children/ Liječ. vjes.
72:2 Feb 50 p. 62-4.

NAI

TRAUSMILLER, O.

Helminthiasis and protozoiasis in children. Lijec.vjes. 72 no.2:
62-64 F '50. (CJML 19:2)

TRAUT, G. N.

OVCHINNIKOV, B. I.

The construction of metal aircraft Moskva, Gos. izd-vo obor. promyshl., 1944. 439 p.
(49-43270)

TL671.2.09

TRAUT, G. N.

Engineering

M: Konstruirovaniy Metallicheskih Samoletov
(Construction of Metal Airplanes) Moscow 1941 (Co-Author)

Soviet Source:
Abstracted in UCAF "Treasure Island", on file in Library of Congress, Air Information
Division, Report No. 77905

TRAUT, G. N.

M: Konstruirovaniye metallicheskih samoletov (Construction of metal airplanes),
Moscow 1944, (Co-author).

Soviet Source:

Abstracted in USAF "Treasure Island", on file in Library of Congress, Air
Information Division, Report No. 82365 UNCLASSIFIED.

OVCHENNIKOV, B.I., TRAVT, G.M.

M: Knostruirovghiye Metallicheskih Samoletov

(The construction of metal airplanes), 1944, Moscow.

Abstracted in USAF "Treasure Island", on file in LIBRARY OF CONGRESS, AIR INFORMATION DIVISION, Report No. 88955. UNCLASSIFIED.

TRAUTMAN, Andrzej

Galilei's general theory of relativity. Postepy fizyki 16 no.1:
19-23 '65.

1. Warsaw Univeristy.

Trautman, A.

Poland/Theoretical Physics - Quantum Field Theory

B-6

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 33775

Author : Trautman, A.

Institution : Institute of Theoretical Physics, Polish Academy of Sciences

Title : Note on Truth of "Inverse Acting" Uniqueness for Certain Non-conservative Fields, Described by Differential Equations of the Hyperbolic Type

Original

Periodical : Byul. Pol'skoy AN, division 3, 1955, 3, No 6, 305-310

Abstract : 'A uniqueness theorem is proven for linear differential equations of the hyperbolic type, describing vector and scalar fields. Included among the 6 conditions needed for the proof is, in particular, the requirement that the field equations result in continuity equations for the sources of the field (current). The uniqueness of the solution to the Cauchy problem is related by the author with the finite velocity of the propagation of the interaction.

Card 1/1

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TRAUTMAN, A.

Trautman, A. Proof of the non-existence of periodic gravitational fields representing radiation. Bull. Acad. Polon. Sci. Cl. III. 5 (1957), 1115-1117, XCII. (Russian summary)

2

Main Theorem: The mean value of the power radiated by a periodic, asymptotically Minkowskian gravitational field is equal to zero. The field is assumed to be produced by an isolated matter distribution. The radiated power is defined to be $\int (T_0^k + t_0^k) n_k dS$, over a 2-surface at infinity in a hypersurface $x^0 = \text{constant}$. "Asymptotically Minkowskian" means that there exist coordinate systems in which $|g_{\mu\nu} - \eta_{\mu\nu}| < M/r$ and $|\partial g_{\mu\nu} / \partial x^\rho| < M/r$ for large r (i.e., far from the distribution of matter). "Periodic" means

that, in some of these coordinate systems, there is a number τ such that $g_{\mu\nu}(x^0 + \tau, x^k) = g_{\mu\nu}(x^0, x^k)$. With this rigorous definition of "periodic", the result is the expected one, since it permits no secular change in the metrical properties of the source distribution. As the author points out, "the entire energy is coupled to the g-field"; thus no strictly periodic energy emission can take place.

The important question remaining is whether almost-periodic rigorous solutions of the field equations, representing radiating systems, can exist.

F. A. E. Pirani (Baltimore, Md.)

RB
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PC

Trautman, A. On the conservation theorems^{2/} and coordinate systems in general relativity. Bull. Acad. Polon. Sci. Cl. III. 5 (1957), 721-727, LXIII. (Russian summary)

The author attempts to develop a theory of conservation laws within the framework of the general theory of relativity by requiring that the conserved quantities and the conservation laws should be defined in such a manner that (a) the usual invariance conditions are satisfied; (b) the conservation laws be capable of an integral formulation; and (c) for flat space-time the conservation laws be reducible to the ten conservation laws of the special theory of relativity. It is remarked that the well-known equations $T^{ij}=0$ do not satisfy conditions (b) and (c). The author's method depends on a variational principle and the application of isometries (i.e. point transformations generated by solutions of Killing's equations [L. P. Eisenhart, Riemannian geometry, Princeton, 1926, p. 234]). It is shown that to each isometry there corresponds a conservation law which fulfills the requirements (a), (b), (c). However, the author is aware of the fact that the number of such laws is equal to the number of independent isometries of the space-time continuum V_4 , and that this number depends on the symmetry properties of V_4 . In particular, V_4 admits 10

TREUMEN, F.
isometries if and only if it is a space of constant curvature. *R*
The author's method is applied also to the study of cer-
tain first integrals of the differential equations of the
geodesics. The paper concludes with some remarks con-
cerning preferred coordinate systems. *H. Rund.*
T.H.
2/2

JK

1018. BOUNDARY CONDITIONS AT INFINITY FOR PHYSICAL THEORIES. A. Trautman.
Bull. Acad. Polon. Ser. Ser. Sci. math. astron. phys., Vol. 6, No. 6, 403-8 (1958).

530.12

2

75
//
Boundary conditions for scalar and Maxwell fields are formulated in a form which exhibits their physical meaning and which is suitable for generalization to the gravitational case. J.C. Taylor

21
JK

TRAUTMAN, Aniraj, dot. dr.

A conference in London, England, on the relativity theory. *Problems*
18 no.5:380-162.

POLAND/Theoretical Physics - Relativity. Unified Field Theory.

B

Abs Jour : Ref Zhur Fizika, No 12; 1959, 26550

Author : Trautman, A.

Inst : ~~XXXXXXXXXXXXXXXXXXXX~~

Title : Radiation and Boundary Conditions in the Theory of Gravitation.

Orig Pub : Bull. Acad. polon. sci. math., astron. et phys., 1958, 6, No 6, 407-412, XXXII - XXXIII

Abstract : Boundary conditions at infinity - radiation conditions - are obtained in the theory of gravitation of an isolated system of masses, analogous to that used by V.A. Fock (Referat Zhur Fizika, 1956, No 9, 24718). It is shown that the gravitational field in the wave zone is close to the field of "pure" radiation, similar to that considered by Likhnerovich (Referat Zhur Fizika, 1956, No 4, 9524) and Pirani (Referat Zhur Fizika, 1959, No 2, 2502).

Card 1/1

- 1 -

✓ 8874. RADIATION AND BOUNDARY CONDITIONS IN THE THEORY OF GRAVITATION, A. Trautman, 530.13
Bull. Acad. Polon. Sci. Sér. Sci. math. astron. phys., Vol. 6, No. 6,
407-12 (1958).

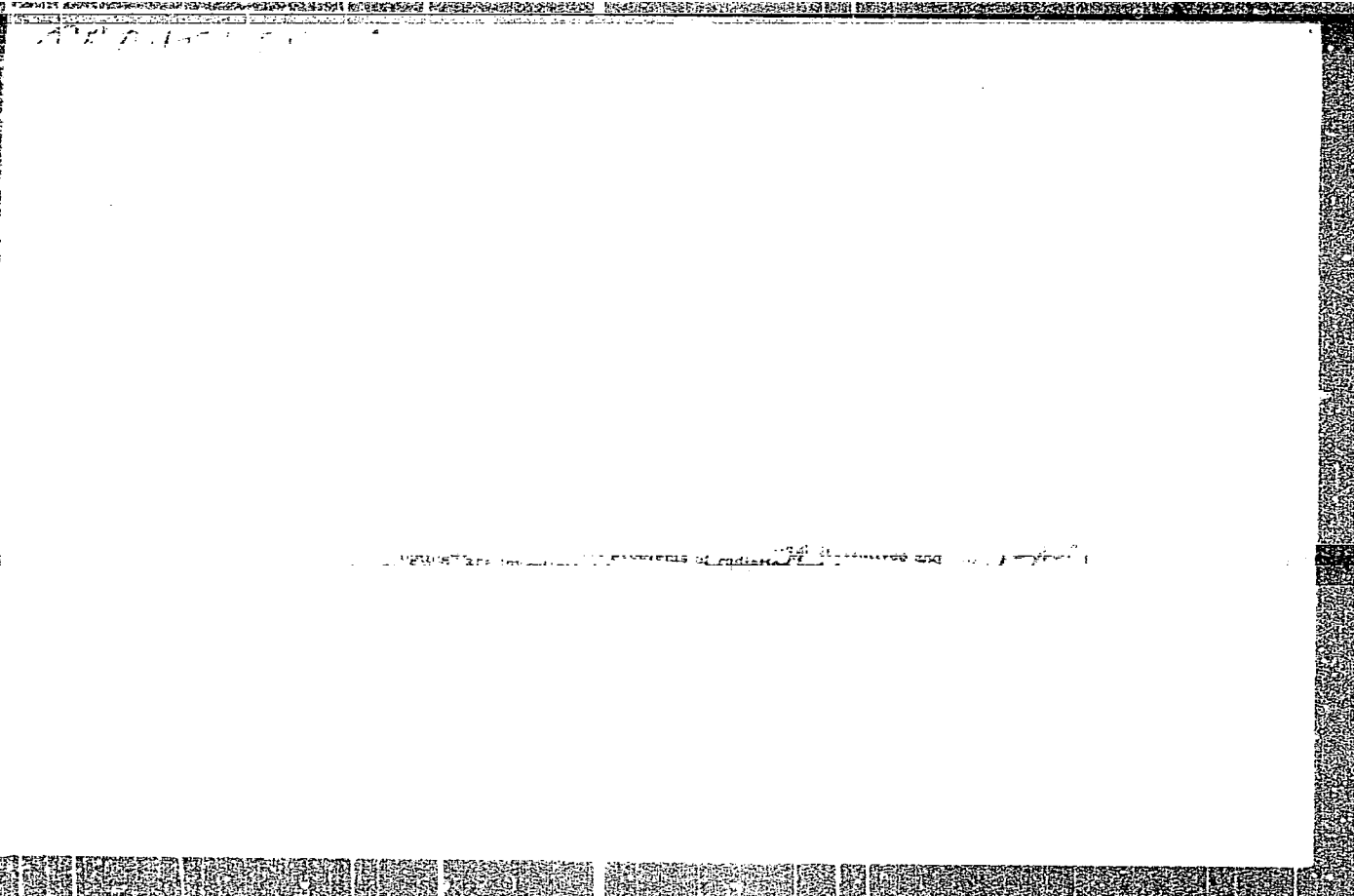
2

The connection between gravitational radiation and the boundary conditions imposed at infinity in general relativity are discussed and the radiation conditions so obtained are related to those formulated by Pirani (Abstr. 3844/1967) and Lichnerowicz (Abstr. 3674/1958). A method of evaluating the total radiated energy is given.
G. Stephenson

TRAUTMAN, A.

On the proofs of "backward" uniqueness for some nonconservative fields describable
by differential equations of the hyperbolic type. p. 307
Vol 3, no. 6, 1955. In English. BULLETIN. Varsovie, Poland.

So: Eastern European Accession. Vol 5, no. 4, April 1956

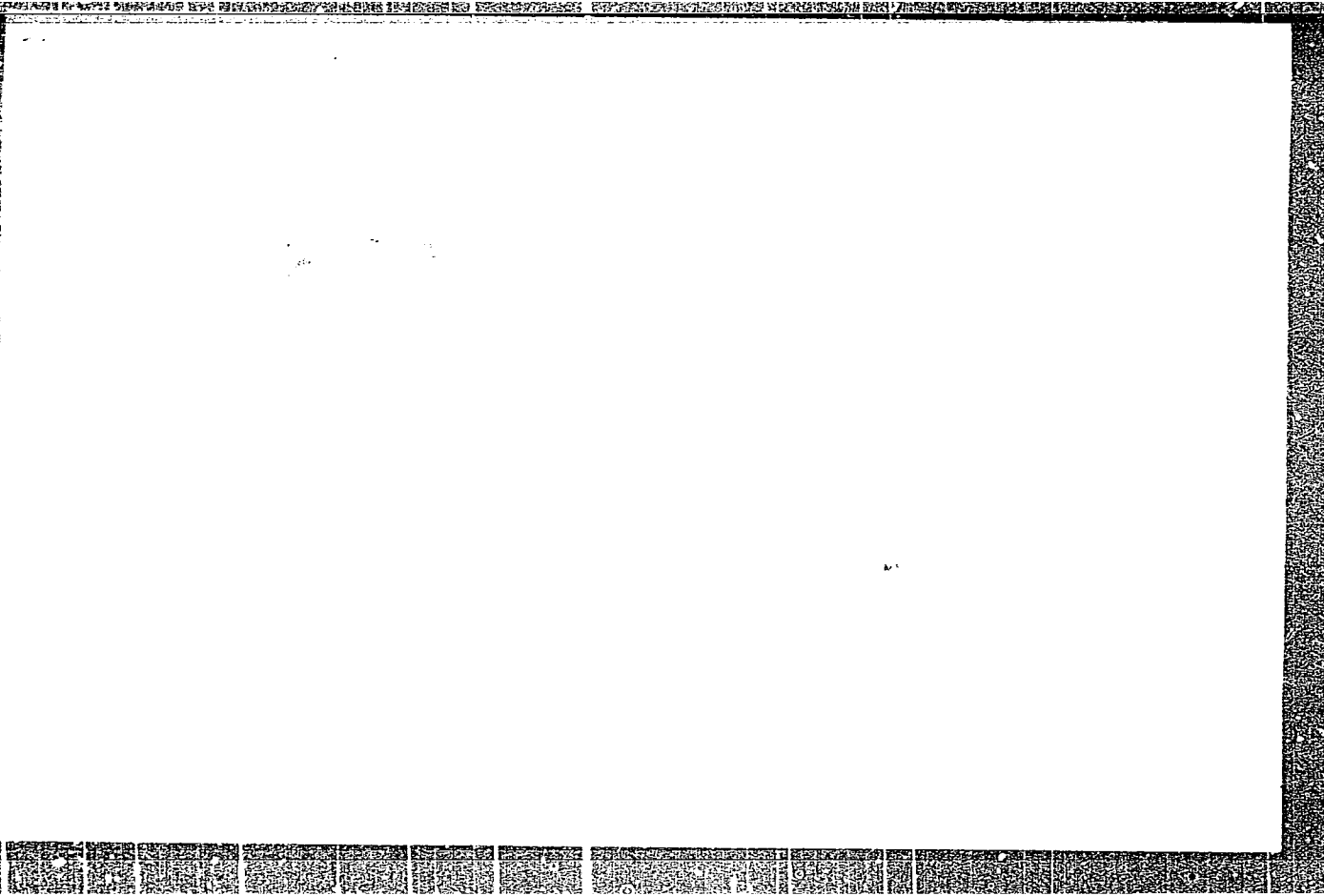


T-100

TRAUTMAN A

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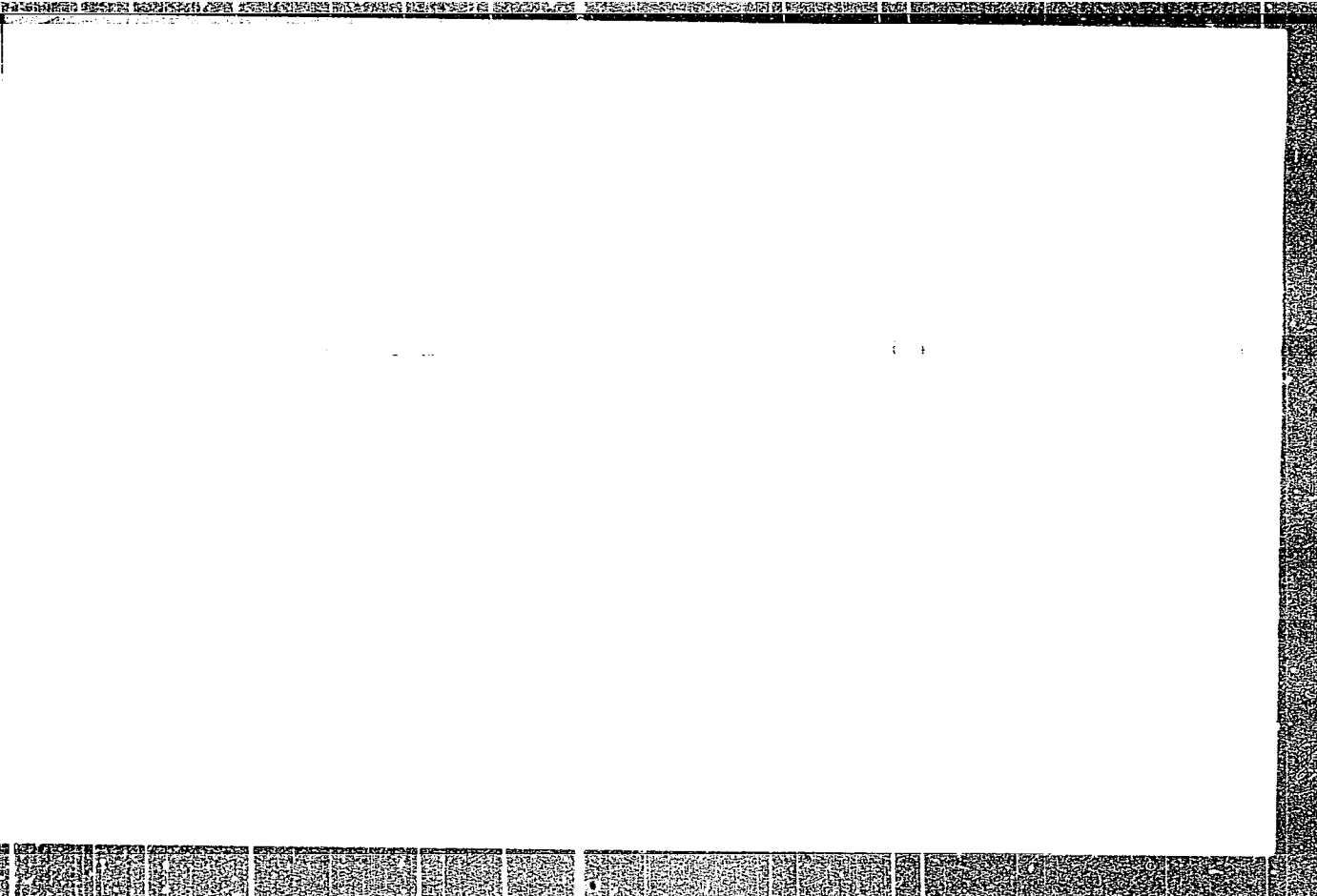


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APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001756510011-4"

method" [Einstein, ~~Wald~~ and Hoffmann, Ann. of Math.
(2) 39 (1936), 65-100] are given as the assumption of
starting with a Galilean metric tensor is removed

Trautman, A. On the proofs of "backward" uniqueness
~~for some non-conservative fields describable by differ-~~
~~ential equations of the hyperbolic type.~~ Bull. Acad.
 Polon. Sci. Cl. III. 3 (1955), 307-312.

MS 1 - F/W

The author proves a theorem that if a vector field I^0 in the four-dimensional continuum is such that from its equations an equation of continuity $I^0_{,i} + Q = 0$ can be deduced, where $|Q|$ is bounded, then the vanishing of I^0 on a bounded region R of the three-dimensional continuum implies the vanishing of I^0 throughout the range of influence of R . From this he deduces the uniqueness of the solution of a hyperbolic system with initial conditions prescribed in R . This result includes as a consequence the establishment of "backward" uniqueness ($t < 0$) for Maxwell's equations, with respect to which I^0 is the field energy density. R. N. Goss (San Diego, Calif.).

Small

TRAUTMAN, A.

"On the conservation theorems and equations of motion in covariant field theories. In English."

p. 675 (Bulletin) Vol. 4, no. 10, 1956
Varsovie, Poland

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

B-2

FOLAND/Theoretical Physics - Relativity. Unified Field Theory

Abs Jour : Ref Zhur - Fizika, No 9, 1958, No 19614

Author : Trautman A.

Inst : Institute of Physics, Polish Academy of Sciences, Poland

Title : Proof of the Non-existence of Periodic Gravitational Fields Representing Radiation.

Orig Pub : Bull. Acad. polon. sci., 1957, Cl. 3, 5, No 12, 1115-1117, XCII

Abstract : The following theorem is proven: the average value of the radiation power of a periodic gravitational field is zero if the space at infinity goes into galilean space. The proof is carried out with direct calculations of the average value of energy over the period:

$$\bar{W} = (1/\tau) \int_{a+\tau}^{a+\tau} w(x^0) dx^0,$$

It being taken into account that, by virtue of periodicity

Card : 1/2

POLAND/Theoretical Physics - Relativity. Unified Field Theory

B-2

Abs Jour : Ref Zhur -- Fiz., 1958, No 11, No 24420

Author : Trautman A.

Inst : Institute of Physics, Polish Academy of Sciences

Title : On the Conservation Theorems and Coordinate Systems in General Relativity.

Orig Pub : Bull. Acad. polon. sci., 1957, Cl. 3, 5, No 7, 721-727

Abstract : The article is the continuation of preceding works of the author (see Referat Zhur Fizike, 1958, No 3, 5139, 5140). He considers the laws of conservation in the general theory of relativity with observance of the following conditions: (1) they should be generally covariant; (2) they can be formulated in integral form; (3) in flat space-time they coincide with the corresponding laws of special theory of relativity. Following the idea of Noether (Noether E. Nachr. Ges. Gottingen, 1918, 235), the author shows that to each infinitesimal motion of space-time there corresponds a definite law of conservation for the field-particle system. The general number of such

Card : 1/2

TRAUTMAN, A.

POLAND/Theoretical Physics - Relativity, Unified Field Theory

B-2

Abs Jour : Ref Zhur - Fizika, No 3, 1958, No 5139

Author : Trautman, A.

Inst : Institute of Physics, Polish Academy of Sciences, Poland.

Title : Conservation Theorems and Equations of Motion in Covariant Field Theories

Orig Pub : Izv. Pol'skoy AN, 1956, Otd. 3, 4, No 10, 665-669

Abstract : The equations of a tensor field whose components are the quantities φ_A are derived from the variational principle $\delta I = 0$, where $I = \int -g \sqrt{-g} L dx$, and L is a function of $g_{\mu\nu}$, φ_A , and of their first order derivative. The function L is assumed to be invariant with respect to the general transformation of coordinates in the space-time V_4 . The conservation law for the energy-momentum tensor $T_{\mu\nu}$, given by the expression

$$T_{\mu\nu} = \frac{2}{\sqrt{-g}} \left[\frac{\partial L}{\partial g^{\mu\nu}} - \frac{\partial}{\partial x^\lambda} \left(\frac{\partial L}{\partial g^{\lambda\mu}} g^{\lambda\nu} \right) \right]$$

Card : 1/2

TRAUTMAN, A.

POLAND/Theoretical Physics - Unified Field Theory

B-2

Abs Jour : Ref Zhur - Fizika, No 3, 1958, No 5140

Author : Trautman, A.

Inst : Not Given

Title : Killing's Equations and the Laws of Conservation

Orig Pub : Byul. Pol'skoy AN, 1956, otd. 3, 4, No 10, 671-674

Abstract : Supplementing the authors preceding work (Abstract 5139) it is shown that the conservation laws can be obtained in the form of an ordinary divergence if one employs for the variation of the coordinates infinitesimally small motions δx^a in space-time, which are the solutions Killing's equation $\delta x^{\nu;\mu} + \delta x^{\mu;\nu} = 0$. The number of resultant conservation laws does not exceed ten. It is shown that in spaces of constant curvature there exists exactly ten conservation laws. In the case of stationary space-time, a conservation law for the energy is obtained. Another case is considered when the variation of the coordinates δx^a satisfies the more general equations $\delta x^{\nu;\mu} + \delta x^{\mu;\nu} = 2\chi^{\mu\nu}$ where χ is a certain scalar.

Card : 1/1

*Trautman, A.*POLAND/Theoretical Physics - Theory of Relativity.
Unified Field Theory.

B-2

Abs Jour : Referat Zhur - Fizika, No 1, 1958, 166

Author : Trautman, A.

Inst : Institute of Physics, Polish Academy of Sciences, Poland.

Title : Discontinuities of Field Derivatives and Radiation in
Covariant Theories.Orig Pub : Bull. Acad. polon. sci., 1957, Cl. 3, 5, No 3, 273-277,
XXII

Abstract : It is the purpose of the work to investigate the character of the jumps in the field derivatives $\psi_A(x^\nu)$ ($\nu = 0, \dots, 3; A = 1, \dots, N$), satisfying the second-order equations that follow from the variational principle $\delta \int \sqrt{-g} L dx = 0$, where $L = L(g_{\mu\nu}, g^{\mu\nu}, \psi_A, \psi_{A,\nu})$. We assume that the function ψ_A are functions of class C^1

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POLAND/Theoretical Physics - Theory of Relativity.
Unified Field Theory.

B-2

Abs Jour : Ref Zhur - Fizika, No 1, 1958, 166

characteristic surfaces $(g^{-\mu\nu} \varphi_{,\mu} \varphi_{,\nu} = 0)$; $h_{\alpha\beta}$
 $= h_{\beta\alpha}$ is the tensor field, which is defined on S.
Restricting ourselves to linear theories and seeking
"optical" solutions in the form $\psi_A = \eta_A e^{i\omega\varphi(x)}$
(where ω denotes a large number), we show that the
amplitude η_A satisfies the equation $\nabla_A \eta^A = 0$.
From this we obtain generalized Eikonal equations in
any linear covariant field theory.

Card 3/3

POLAND/Theoretical Physics - Relativity. Unified Field Theory.

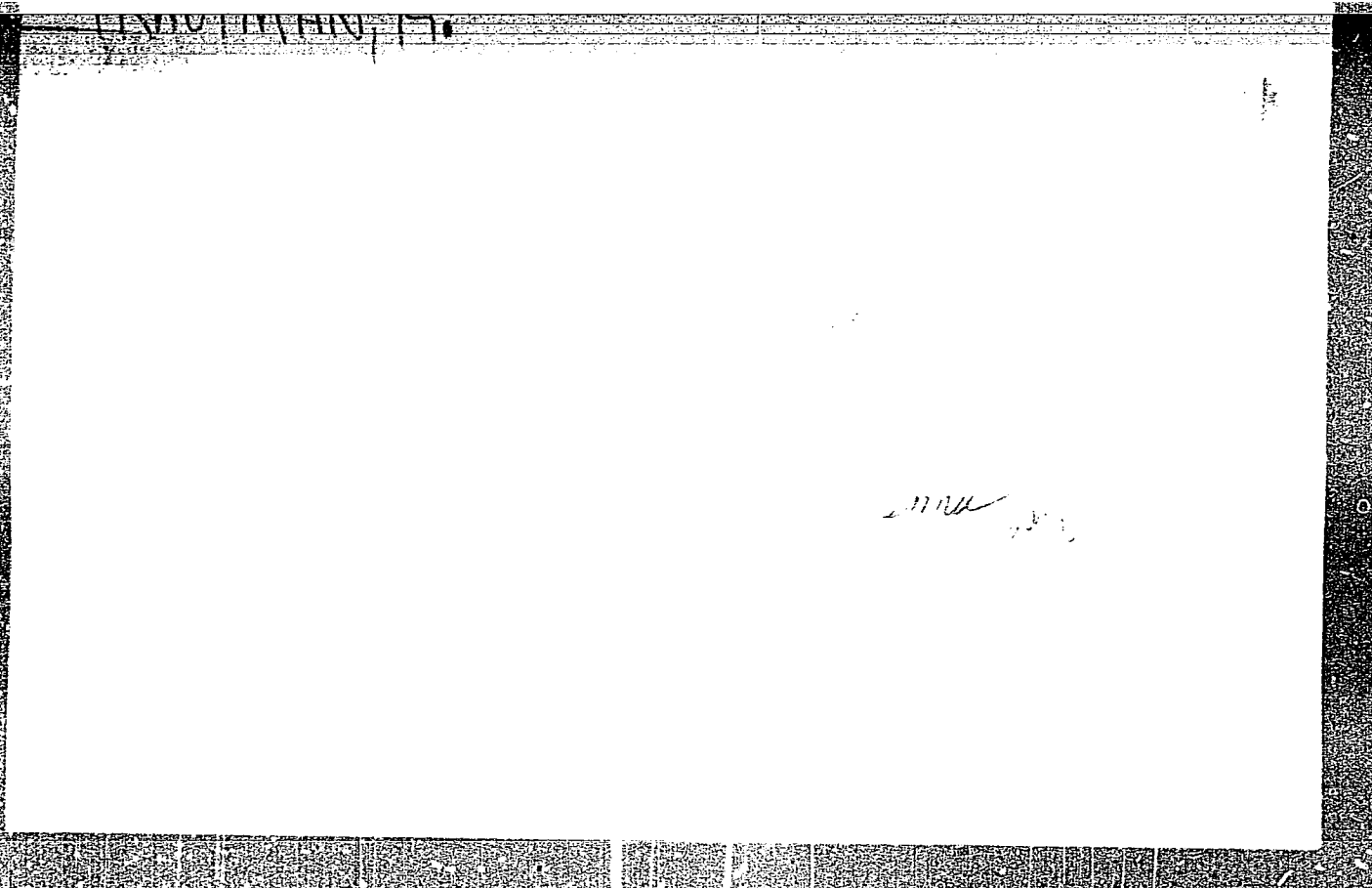
B

Abs Jour : Ref Zhur Fizika; No 12, 1959, 26551

transformation). By way of an example, the gravitational radiation of a double star is investigated.
-- Ya.I. Pugachev

Card 2/2

- 2 -



L 41626-66 EST(1) IJP(c)

ACC NR: AP6617962

SOURCE CODE: UR/0053/66/089/001/0003/0031

AUTHOR: Trautman, A.

ORG: Institute of Theoretical Physics of the Warsaw University (Institut teoreticheskoy fiziki Warszawskogo universiteta)

TITLE: General theory of relativity

SOURCE: Uspekhi fizicheskikh nauk, v. 89, no. 1, 1965, 3-31

TOPIC TAGS: general relativity theory, mass energy equivalence, gravitation wave, gravitation field

ABSTRACT: This is a survey of various results and problems of general relativity, with particular attention to those discussed in recent international conferences (London 1965 and Tbilisi 1965). Considerable space is devoted to controversial questions such as the postulate of general covariance, the equivalence principle, preferred coordinate systems, conservation laws, and gravitational radiation. No cosmology or relativistic astrophysics is discussed, since these have been treated in different

1/2

UDC: 530.12.531.51

L 41626-66
ACC NR: AP6017862

review articles published in the same source. The standard papers dealing with the fundamental problems of relativity theory are cited in the concluding remarks. The section headings are: 1. Introduction. 2. Principle of equivalence, 3. Relativity, symmetry, and invariance. 4. Conservation laws. 5 Orders of magnitude of the effects of general relativity theory. 6. Gravitational wave and radiation. 7. Geometry of null elements. 8. Concluding remarks. Appended to the article is a supplement "Types of Gravitational Fields in the Classification of A.Z. Petrov" by L. P. Grishchuk, who translated the article from manuscript. The reason for the supplement is that Petrov's classification of gravitational fields, used in the text, may not be familiar to all readers. Orig. art. has: 1 figure and 69 formulas.

SUB CODE: 20/ SUBM DATE: 00 ORIG REF: 008/ OTH REF: 088

2/2 h_g

21(8)

POL/W-10-3-3/3

AUTHOR: Trautman, Andrzej

TITLE: On the Gravitational Radiation

PERIODICAL: Postępy Fizyki, 1959, Vol 10, Nr 3, pp 301 - 308 (POL)

ABSTRACT: In this article, which is a synopsis of a doctor's thesis submitted by the author, the author reviews the theories referring to gravitational waves and gravitational flux, and their possible application for energy propagation. He comes to the conclusion that this phenomenon may be termed "gravitational radiation" only if we do not identify "radiation" with "energy propagation". He mentions the works of Einstein, Infeld and Hoffmann, which deal primarily with plain waves and are based on the analogy with electrodynamics. Their theories actually consider only the standing waves, even after they discovered the cylindrical wave. Their computations were further developed by Hu, Peres, Bondi, Marder, Pirani and Lichnerowicz; however, without producing any experimental proof for the existence of gravitational radiation. It is difficult to determine the term "gravitational energy": if we assume that $g_{\mu\nu}$ is a component of a metric tensor representing the potential of a gravitational field, we could expect that the energy level would be expressed by some square

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On the Gravitational Radiation

PCL/47-10-3-3/9

form of Christoffel symbols; but it is always possible to select such coordinates for any space-time period in which all Christoffel symbols disappear. According to another theory a gravitational field may be represented better by Rieman's tensor than by Christoffel's symbols, in which case the energy of a gravitational field would have to be expressed by the square of the tensor of the curve. Einstein and his followers, when computing the radiation energy, employed a so-called pseudotensor of kinetic energy, but Infeld recently has demonstrated that it is always possible to find such a set of coordinates for any gravitational field produced by an isolated system of bodies in which the Poynting vector product will equal zero. It seems necessary, under these circumstances, that first of all some limiting values have to be established, like for instance the Sommerfeld limiting values for electro-dynamics, which would not stipulate any particular system of coordinates.

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On the Gravitational Radiation

POL/47-10-3-3/9

An attempt in this direction has been made by Fock, who is proposing an "asymptotic harmonic" system.

There are 23 references, 5 of which are Polish, 1 Soviet, 2 German, 2 English, 5 American, 1 Italian and 7 unidentified.

ASSOCIATION:

Instytut Fizyki PAN (Physical Institute of the Polish Academy of Sciences)

Card 3/3

POLAND/Theoretical Physics - Relativity. Unified Field Theory

B-2

Abstr Jour : Ref Zhur .. Fizika, No 12, 1958, No 26688

Author : Treutman Andrzej, Tulczyjew Wlodzimierz
Inst : Not Given
Title : Gravitation and Invariance

Orig Pub : Postepy fiz., 1958, 9, No 1, 3-25

Abstract : Survey article. Bibliography, 28 titles.

Card : 1/1

VARGA, Gyorgy; TOROK, Istvan; ZABRACZKY, Geza; TRAUTMAN, Rezső; KOVACS, Istvan; BARADZIEJ, Laszlone; PALFALVI, Andras; GROF, Jozsef

The 1961 national economic plan and the tasks of trade unions; the 9th plenary session of the National Council of Trade unions. Munka 11 no.2:1-6 F '61.

1. Szakszervezetek Orszagos Tanacsa titkara, es Szerkeszto bizottsagi tag, "Munka". (for Varga) 2. Vasas Szakszervezet fositkara (for Torok) 3. Tatabanyai Trosztbizottsag titkara (for Zabraczky) 4. Epitesugyi miniszter, Budapest (for Trautman) 5. MEDOSZ fositkara (for Kovacs) 6. Kistex szb titkara (for Baradziej) 7. Fejermegyei Szakszervezeti Megyei Tanacs vezeto titkara (for Palfalvi) 8. Vasutas Szakszervezet titkara (for Grof).

(Hungary--Economic policy)
(Hungary--Trade unions)

TRAUTMANN, Rezso, dr.; KORACH, Mor, dr., akademikus

Solemn opening of the 7th Conference on Silicate Industry.
Epitoanyag 15 no.8:281-286 Ag '63.

1. Epitesugyi miniszter, Budapest (for Trautmann).
2. Szilikatipari Tudományos Egyesület elnöke; "Epitoanyag" főszerkesztője (for Korach).

TRAUTMANN, Rezso, dr.

The ten-year-old "Magyar Epitoipar." Magy ep ip 10 no.3:97-98 '61.

1. Epitesugyi miniszter.

TRAUTMAN, N. F.

"Graphic Methods in Problems of Design, Correction, Sharpening, and Adjustment of Metal-Cutting Tools." Sub 27 Jun 51, Moscow Machine-Tool and Tool Inst imeni I. V. Stalin

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

TRAUTMAN, N. F.

N. F. Trautman, Candidate in Technical Sciences, Sbornik zadach do nachertatel'noy geometrii v primenenii k razlichnym oblastam nauki i takhniki /Collection of Problems in Descriptive Geometry as Applied to Various Fields of Science and Technology/, Mashgiz, 22 sheets.

SO: U-6472, 12 Nov 1954

TRAUTMAN, Yu

18091

USSR/City Planning 5108.0500 Dec 1947
Housing 5603.0300

"To Make the Plan Fit the Locality," Yu. Trautman,
Chief Archt of Sevastopol', 1 p

"Arkh. i Stroi" Vol II, No 14

Postwar reconstruction and building in 1947 in Sevastopol' included 63,300 sq m of living space in State and communal houses and 66,300 in individual houses, with majority of all construction in center of city. Any type of temporary construction now forbidden.

"Sevastopol'stroi" Trust of Ministry of Construction of Military and Naval Enterprises and "Sevastopol'-Grazhdanstroy" Trust of Ministry of Civilian Housing
IC 18091

USSR/City Planning 5108.0500 (Contd) Dec 1947

Construction of RSNER responsible for most of construction. Discusses planned construction.

IC

18091

TRAUTWEIN, L.

TRAUTWEIN, L. Innovation and standardization. p. 32.

No. 22, Nov. 1955.

MUSZAFI ELET.

TECHNOLOGY

Budapest, Hungary

So: East European Accession, Vol. 5, No. 5, May 1956

TRAUTSOLT, Antoni, inz. (Warsaw)

Letter to the editor. Przegl budowl i bud mieszk 27 [i.e. 37]
no.3:17 174 Mr '65.

TRAUTMAN, A.

Distr: 424c

Trautman, A. On the conservation theorems and equations of motion in covariant field theories. Bull Acad Polon Sci Cl III 4 1956: 675-678

5
1-F/W

Conservation laws derivable from a Lagrangian are obtained in the form well known to Emmy Noether, under the assumption that the substantial derivative of the field variables $\delta\psi$ is a linear combination of ψ and ψ, ν . The resulting equations are applied to the case of a perfect fluid without pressure to show that the equations of motion appear as integrability conditions.

A. J. Coleman (Toronto, Ont.)

//

TRAUTMAN, A.

Dist: 4240

Trautman, A. Killing's equations, and conservation theorems. Bull Acad Polon Sci Cl III 4 (1956). 679-682 / 4 1-F\W

Continues the paper reviewed above, studying conservation laws associated with variations of the metric. It is first shown that a theory is conformally invariant if the energy-momentum tensor has zero trace. The consequences of Killing's equations, which put restrictions on the metric, are then explored with applications to flat-space, stationary space and spaces of constant curvature. A J Coleman (Toronto, Ont.) //

WILKINSON, A.

1470 PROOF OF THE NON-EXISTENCE OF PERIODIC GRAVITATIONAL FIELDS REPRESENTING RADIATION 130.12

2

A. Trautman
Bull Acad Polon Sci Cl 3 Vol 5 No 12 115-17 (1957)
It is shown that there exist no exact periodic solutions of Einstein's equations with matter representing radiation. A periodic solution would imply that $R_{\alpha\beta} = R_{\alpha\beta}^0 + \delta R_{\alpha\beta}$ where $\delta R_{\alpha\beta}$ is a wave function.

where M is a constant and $g_{\alpha\beta}$ is the metric tensor of flat spacetime. Radiation is understood as energy escapes to infinity.
G. Stephenson

TRAUTMAN, Rezhë [TRAUTMAN, Rezső]

Broaden mutual exchange of experience. Stroi.mat. 3 no.10:15
0 '57. (MIRA 10:10)

1.Ministr stroitel'stva Vengerskoy Narodnoy Respubliki.
(Hungary--Building materials industry)

TRAUTMANN, Rezso, Dr.

Answers of the questions by technicians. Musz elet 17 no.6:3
Mr '62.

1. Epitesugyi miniszter,

TRAUTMANN, Rezso

Construction Minister Rezso Trautmann's statements about the current questions of the construction industry. Ujit lap 14 no.6:3 Mr '62

1. Epitesugyi Miniszter, Budapest.

TRAUTMANN, Rezső, a muszaki tudományok kandidátusa

Policy of agricultural constructions. Muszaki kozl MTA 27 no.1/2:
163-174 '60. (EEAI 10:4)

1. Magyar Tudományos Akademia, Muszaki Tudományok Osztalya.
(Hungary--Farm buildings)

TRAUTMANN, Rezso, dr.

On the New Year's eve. Epites szemle 5 no.1:1-2 '61.

1. Epitesugyi Miniszter, Budapest.

TRAUTMANN, Rezso, dr.

Significance of regional planning from the point of view of the construction industry. Epites szemle 5 no.6:161-163 '61.

1. Epitesugyi miniszter, Bucapest.

TRAUTMANN, R.

"The significance of Hungarian-Soviet cooperation in the construction industry." p. 157

MAGYAR EPITOIPAR. (Epitoipari Tudományos Egyesület) Budapest, Hungary, Vol. 8, No. 3, Mar. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 6, June 1959
Uncl.

TRAUTSOLT, S.

SCIENCE

Periodicals: PRZEGLAD GEODEZYJNY. Vol. 14, no. 9, Sept. 1958.

TRAUTSOLT, S. Graphic determination of length. p. 351.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 4,
April 1959, Unclass.

TRAUTSOFT, S.

The agricultural planning surveyor; a lecture at the 12th Scientific-Technical Conference of the Association of Polish Geodesists. Also, remarks by L. Perfiniewicz. p. 43.

PRZEGLAD GEODEZYJNY . (Stowarzyszenie Naukowe-Techniczne Geodetow Polskich)
Warszawa, Vol. 15, no. 2, Feb. 1959.

POLAND

Monthly List of European Accession (EEAI) LC, Vol. 8, no. 7, July 1959.

Uncl.

TRAUTSOLT, Zofia

Testing the vertical displacements of bench marks in precise leveling in the Upper Silesian Coal Basin during the years 1949-1958. Prace inst geod 11 no.1:69-79 '64.

L 44094-66

ACC NR: AT6021341 (A) SOURCE CODE: PO/2505/65/012/003/0114/0128

AUTHOR: Trautsolt, Zofia — Trautsol't, Zofiya

ORG: Geodesy and Cartography Institute (Instytut geodezji i kartografii)

TITLE: Vertical displacements of precision-leveling bench marks in the Upper Silesian Coal Basin during 1958—1962 and comparison with previous measurements

SOURCE: Warsaw. Instytut Geodezji i Kartografii, Prace, v. 12, no. 3 (27), 1965, 114-128

TOPIC TAGS: geodetic survey, bench mark displacement, vertical crust movement, coal mining

ABSTRACT: Previous research on vertical displacement of bench marks in the Upper Silesian Coal Basin along the base lines of precision leveling was made in 1955—1958 and 1949—1958. It was carried out by repeated leveling, making use of the precision leveling nets plotted in 1949—1952, 1955, and 1957—1958. The 1957—1958 net was intended for research. This net is to be remeasured every 4-5 yr. The first repeti-

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UDC: 551.241:528.481:/438.95/"1958/1962"

L 44094-66

ACC NR:

AT6021341

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tion along the base lines was carried out by the State-owned Geodesy Enterprise in 1962. By comparing results of the two successive measurements it was possible to determine bench-mark vertical displacements in 1958--1962. The leveling net used for comparisons consisted of 32 double lines covering about 558 km. They formed 6 closed and 11 open polygons, with 665 common bench marks checked. Bench-mark vertical displacement values were determined by measuring differences in height between neighboring bench marks, using the same method as in previous measurements, and by computing differences in height and totals for each of the compared lines. The net was adjusted by the method of controlled observations on an 11-station base, assumed to be unchanged, while the weights were fixed as inversely proportional to the length of the lines. The mean square error for a line 1 km in length was

$$m_0 = \pm 1,90 \text{ mm}$$

Corrections to the total differences for each line were obtained by adjusting the net. This was followed by first adjusting the displacement of the nodal bench marks, and then all other bench marks. The 1957--1958 net has many newly established bench marks, and so forms the

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AT6021341

basis for leveling nets of lower orders or for local studies. The great number of common bench marks for the nets compared (1957--1958 and 1962) made it possible to obtain a detailed survey of ground changes along leveling lines. Considerable displacements (more than 10 cm) are noted in the bench marks situated along lines passing over mining areas, while bench-mark displacement values near mines were of the order of several cm. A comparison of research results concerning the three periods in question made possible: 1) establishment bench-mark displacement values over a long period of time and conjecture about probable subsidence in the near future; 2) more accurate definition of leveling line sections with bench marks settling more than 10 cm due to mining; 3) selection of lines or line sections with bench-mark displacements of the same orders of values. It was also possible to pick out absolutely fixed bench marks, which can be used as junction stations to great advantage. The following conclusions are reached: 1) Mining causes significant ground subsidence, showing up in lines crossing mine areas (ground settlement was more than 10 cm during the time covered by the study); 2) changes in the height of bench marks are irregular; 3) ground settlement in some areas was faster in 1958--1962 than in previous yr;

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AT6021341

4) Bench marks situated on lines bypassing mining areas showed displacements of 2 to 10 cm during the time covered by the study; 5) actual displacements of the same value as computed, or differences not exceeding a few mm were found in the case of 10 lines. Research reported in the article dealt only with ground configuration changes along leveling lines. More research is needed on a local level to establish surface variations over the whole coal basin. Orig. art. has: 2 figures and 3 tables. [Based on author's abstract] [DR]

SUB CODE: 08/ SUBM DATE: 00Jan65/ ORIG REF: 004/

Card 4/4 LC

TRAVCHETOVA, Ye.I.

Genesis of the morphological changes in sudden death from hypertension. Report No.2: Histological study of the kidneys. Sud.-med. ekspert. 5 no.3:24-27 J1-S '62. (MIRA 15:9)

1. Kafedra sudebnoy meditsiny (zav. - prof. A.P.Kurdyumov)
I Leningradskogo meditsinskogo instituta imeni akademika I.P.
Pavlova.

(KIDNEYS) (HYPERTENSION) (DEATH---CAUSES)

KIRINA, G.V.; TRAVCHETOVA, Ye.I.

Determination of age in women with hypertension and atherosclerosis.
Sud.-med.ekspert. no.4:15-16 O-D '65.

(MIRA 18:12)

1. Kafedra sudebnoy meditsiny I Leningradskogo meditsinskogo
instituta imeni I.P.Pavlova. Submitted May 27, 1964.

TRAVCHETOVA, Ye.I. (Leningrad, 129, Kirovskiy pr., d.73-75, kv.11)

Evaluation of the severity of injury in pelvic fractures. Vest.
khir. 79 no.7:77-81 J1 '57. (MIRA 10:10)

1. Iz kafedry sudebnoy meditsiny (zav. - prof. A.P.Kurdyumov) 1-go
Leningradskogo meditsinskogo instituta im. akad. I.P.Pavlova.
(**PELVIS**, fractures,
determ. of severity of inj. (Rus))

USSR / Human and Animal Morphology (Normal and
Pathological). Nervous System. Peripheral
Nervous System.

S

Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 16978

Author : Travchetova, Ye. I.

Inst : First Leningrad Medical Institute, Chair
of Legal Medicine

Title : On the Problem of Changes of the Spleen in
Sudden Death from Hypertension

Orig Pub : Sb. tr. Kafedry sudebn. med. 1-y Leningr.
med. in-t, 1958, vyp 2, 77-82

Abstract : No abstract given

Card 1/1

TRAVCHETOVA, Ye.I.

Genesis of acute cardiac insufficiency in sudden death from
hypertension. Sud.-med. ekspert. 3 no.3:17-21 JI-S '60.

(MIRA 13:9)

1. Kafedra sudebnoy meditsiny (zav. - prof. A.P. Kurdyumov)
I Leningradskogo meditsinskogo instituta im. akad. I.P. Pavlova.
(HEART—FAILURE) (DEATH—CAUSES)
(HYPERTENSION)

PROCESSES AND PROPERTIES INDEX

2116. UTILIZATION OF CUPOLA AND BOILER FURNACE WASTE GASES FOR HEATING INDUSTRIAL SHOPS. Travchuk, V.P. (Promyshlennaya Energetika, 1946, 3, No. 2, 15). A scheme for utilizing exhaust gases for heating is outlined.

C.A.

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX	PROCESSES AND PROPERTIES INDEX	ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION	E-27
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

TRAVEN', F., inzh.-lesovod; DUBININ, P., inzh -lesovod

Reliable protection against sirocco-like winds. Nauka i pered.
op.v sel'khoz. 9 no.8:28-30 Ag '59. (MIRA 12:12)
(Windbreaks, shelterbelts, etc.)

TRAVEN, F.

"Methods for growing oak in the steppe regions of the Southwest", P. 133.
(Analele Romano-Sovietice. Seria Silvicultura-Industria Lemnului Si A Hartieli.
Series a II-a, v. 7, No. 15, Sept/Oct 1952, Bucuresti.)

EAST EUROPEAN Vol. 2, No. 9

SO: Monthly List of ~~Russian~~ ^{XXXXXX} Accessions, Library of Congress, September 1953, Uncl.

K

COUNTRY : USSR
CATEGORY : Forestry. Forest Cultures.
ABS. JOUR. : RZhBiol., No. 4, 1958, No. 15505
AUTHOR : Traven', F.I.; Dubinin, P.S.
INST. : --
TITLE : Rapidly Growing Varieties of the Oak Cultivat-
ed in Forest Tracts.
ORIG. PUB. : Lesn. kh-vo, 1958, No.4, 26-32
ABSTRACT : For the conditions necessary in the success-
ful cultivation of oak forest plantations
there was a group distribution of the latter
as the principal species on steppe soils on
forest cultural surfaces. It is suggested
that the oaks be placed by bands of 2 - 4 rows
of line-hole sowings. This method retains
the beneficial effects of energetic biotrons
and guarantees the necessary supremacy of the
oak in the plantations with hardly any expen-
CARD: 1/2

COUNTRY :
CATEGORY :
ABS. JOUR. : RZhBiol., No. 4, 1959, No. 195905
AUTHOR :
INST. :
TITLE :

ORIG. PUB. :
ABSTRACT : Effect of labor for 11 days exposure. It is
concluded that such labor is not recommended
out of all recommendations in studies which
have been carried in connection with regular
and irregular labor. It is recommended that
laborers should be given a 10-15% increase
in the amount of food. The amount of food
should be 100-110% of the normal amount.
-- Ye. N. Sabin

CARD: 2/2

TRAVEN', F.I.

Planting forest shelterbelts to control wind erosion. Zemledelie.
6 no.9:47-52. S '58. (MIRA 11:9)
(Caucasus, Northern--Windbreaks, shelterbelts, etc.)

TRAVEN', F.I., inzhener-lesovod; DUBININ, P.S., inzhener-lesovod.

How to plant shelterbelts. Nauka i pered.op.v. sel'khoz. 7 no.7:39-41
Jl '57. (MIRA 10:8)

(Windbreaks, shelterbelts, etc.)