

**PASZKOWSKA, Anna**

Course of simultaneous tuberculous infection in three children of the same family. *Pediat. polska* 34 no.7:963-966 July 59.

1. Z Oddziału Dziecięcego Instytutu Gruźlicy i z Sanatorium Przeci-gruźliczego dla dzieci w Otwocku Kierownik Naukowy: prof. dr Fr. Groer.

(TUBERCULOSIS PULMONARY, in inf. & child)

PASZKOWSKA, A.

Effect of isonicotinic acid hydrazide therapy on tuberculin allergy in tuberculosis in adults and children. *Pediat. polska* 28 no.6:577-581 June 1953. (CJML 25:4)

1. Of the Pediatric Department of the Institute of Tuberculosis and of the Sanatorium imienia Marchlewski (Head--Prof. F. Groer, M.D.) in Otwock.

KRUKOWSKA, Helena; PASZKOWSKA, Anna; KRUSZEWSKA, Wanda

Attempted therapy of tuberculosis in children with ethionamide  
(Th-1314). Gruzlica 30 no.7:627-640 '62.

1. Z Oddzialu Pediatrycznego Instytutu Gruzlicy Dyrektor:  
prof. dr med. W. Jaroszewicz i z Sanatorium im. J. Marchlewskiego  
w Otwocku Kierownik naukowy: prof. dr med. P. Groer Dyrektor  
sanatorium: dr K. Stec-Kryszkiewicz.  
(ETHIONAMIDE) (TUBERCULOSIS IN CHILDHOOD)

KRUKOWSKA, Helena; PASZYKOWSKA, Anna; JANISZEWSKA, Maria; HARASIANICZ,  
Stefan; SZELAGOWSKA, Henryka, Otwock

Analysis of home environment of children treated at the Marchlewski  
sanatorium in Otwock in 1952/1953. Gruzlica 22 no.10:732-744 Oct 54.

1. Z Oddzialu Pediatrycznego Instytutu Gruzlicy, Kierownik: prof.  
dr. Fr.Groer

(TUBERCULOSIS, in infant and child  
home environmental factors in etiol.)

(ENVIRONMENT  
in etiol. of tuberc. of child.)

PASZKOWSKA, Anna

Early results of pneumothorax treatment in cases of post-primary tuberculosis in children and adolescents. Gruzlica 24 no.8:698-705 Aug 56.

1. Z Oddziału Pediatrycznego Instytut Gruzlicy w Otwocku - Sanatorium im. J. Marchlewskiego, Kierownik prof. dr. F. Groer.  
(PNEUMOTHORAX, ARTIFICIAL, in inf. and child in post-primary tuberc.)

HALIKOWSKI, Boguslaw; PASZKOWSKA, Anna; STEC-KRYSZKIEWICZOWA, Krystyna

Cortisone therapy in late stages of primary tuberculous complex in children. Gruzlica 27 no.2:125-135 Feb 59.

1. Z Oddzialu Dzieciecego Instytutu Gruzlicy i Sanatorium Przeciwgruzliczego w Otwocku Kierownik Naukowy: prof. dr Fr. Groer. Adres: Otwock, Sanatorium Przeciwgruzlicze dla Dzieci im. Marchlewskiego.

(TUBERCULOSIS, PULMONARY, in inf. & child.

primary complex, cortisone ther. in late stages (Pol))

(CORTISONE, ther. use,

tuberc., pulm. in child., late stages of primary complex (Pol))

PASZKOWSKA, Anna

Bacteriological results of chemotherapy of primary pulmonary tuberculosis in school children. Gruzlica 31 no.11:1103-1112 N '63.

1. Z osrodka ~~Problemskiego~~ Instytutu Gruzalicy w Otwocku. Kierownik: doc. dr med. H. Krukowska w Sanatorium Przeciwgruzliczym dla Dzieci im. J. Marchlewskiego w Otwocku.

PASZKOWSKA, Anna

Recurrences of post-primary tuberculosis in children. Gruzlica 29  
no.3:227-236 Mr '61.

1. Z Oddziału Pediatrycznego Instytutu Gruzlicy i Sanatorium im.  
J. Marchlewskiego w Otwocku Kierownik: prof. dr med. Fr. Groer.

(TUBERCULOSIS PULMONARY in inf & child)



1ST AND 2ND EDITIONS

PROCESSING AND PROPERTY INDEX

BC

A-4

Influence of organic substances [from plants] on the growth of transplanted tumours. M. GARRY-KOZYRA, M. PASKOWSKA, and E. KARASW-SKI (Bull. Acad. Polonaise, 1957, B-11, 7-8).—Aq. extract of a species of Polyposone administered orally or subcutaneously to mice suffering from implanted sarcoma prolongs their life and restricts the growth of the sarcoma. W. McC.

COMMON ELEMENT

OTHER

MATERIALS INDEX

ADD-35A METALLURGICAL LITERATURE CLASSIFICATION

FROM SOURCE

SPONSOR #

EDITION MAP ORY OR

BULLETIN

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SOBANSKI, Janusz, prof. dr. med.; ZELAWSKA-RYBUSOWA, Helena; PASZKOWSKA,  
Maria; SOBANSKA-GOETZOWA, Maria

Binocular vision. Klin. oczna 35 no.2:247-250 '65.

1. Z Kliniki Chorob Oczu Akademii Medycznej w Lodzi (Kierownik: prof. dr. med. J. Sobanski).

GOETZ, Jerzy; PASZKOWSKA, Maria

Congenital leukoma of the cornea. Klin. oczna 34 no.1:65-68  
\*64.

1. Z Kliniki Chorob Oczu AM w Lodzi; kierownik: prof.dr.med.  
J.Sobanski.

\*

SOBANSKI, Janusz; PASZKOWSKA, Maria; SOBANSKA-GOETZ, Maria

Expression of the lens as a method for the intracapsular extraction of hard cataract. Klin. oczna 32 no.2:157-160 '62.

1. Z Kliniki Chorob Oczu AM w Lodzi Kierownik: prof. dr med. J. Sobanski.

(CATARACT EXTRACTION)

I 49221-65 EWG(m)/EEC-4/EEC(t)/T/EWP(t)/EED-2/EWP(b)/EED(b)-3 Pn-4/  
Pae-2 IJP(c) RDW/TX/JD  
ACCESSION NR: AP5010644 PO/0019/65/014/001/0139/0148

51  
48  
8

AUTHOR: Paszkowski, B.; Rudowski, G.; Swit, A.

TITLE: PbTe type infrared radiation detectors 53

SOURCE: Archiwum elektrotechniki, v. 14, no. 1, 1965, 139-148

TOPIC TAGS: radiation detector, infrared radiation, lead telluride, metal coating, photoelectric sensitivity, noise equivalent power, dark resistance

ABSTRACT: The paper describes three methods of producing PbTe infrared radiation detectors and presents some of the results obtained with their use. The PbTe layers are produced on a glass substrate by evaporation in a vacuum, with subsequent activation by oxygen. The construction of the detectors, which can operate either vertically or horizontally, is described and illustrated by figures. The sensitive layer is cooled by liquid nitrogen. Before evaporation, the glass envelopes are kept in a high vacuum at 450C for about 3 hours. The three methods of evaporating the layers are illustrated in Figs. 1 and 2 of the Enclosure. In the first method (Fig. 1, a), finely ground polycrystalline PbTe is evaporated from a quartz crucible onto the wall of the glass shield (with the substrate heated). Subsequently, in an atmosphere of oxygen, PbTe is transferred onto

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ACCESSION NR: AP5010644

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the substrate by heating the shield; the substrate is then held at a temperature of 40—80C. In the second method (Fig. 1,b), PbTe is evaporated directly onto the substrate in an atmosphere of oxygen without heating or cooling the substrate. In both methods, air is admitted after evaporation and then pumped out prior to sealing. In the third method, (Fig. 2), two-stage evaporation is also employed, but in this case air is not admitted. Further details of these methods are described in the paper. The methods for the measurement of photoelectric sensitivity, noise equivalent power (NEP), standardized detectivity ( $D^*$ ) and relative spectral sensitivity are given. Figs. 3, 4, and 5 of the Enclosure show some of the results obtained. It has been observed that PbTe layers show lower dark resistance and higher photoelectric sensitivity if the oxygen pressure in the apparatus during the course of evaporation is higher. Moreover, heat treatment (soaking) of PbTe layers in a vacuum changes their dark resistance, photoelectric sensitivity and long-wave sensitivity threshold. The parameters of the obtained detectors are as follows: sensitivity related to the black body radiation at a temperature of 500K, 7000 v/watt; standardized detectivity  $D^*$  (500K, 500 cps, 1cps), up to  $2 \times 10^8$  (cps)<sup>1/2</sup> cm/watt; long-wave sensitivity threshold, 5-5.8  $\mu$ . These parameters were measured after cooling the sensitive layer of the detector with liquid nitrogen. Other parameters of the detectors are shown in a table. The detectors are currently used in the Instytut Podstawowych Problemow Techniki PAN (Institute of the Fundamental Problems of

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ACCESSION NR: AP5010644

Technology, PAN) and the authors' department for the measurement of radiation absorption in various materials (e.g., glass, germanium) Orig. art. has: 12 figures, 1 table and 3 formulas. [08]

ASSOCIATION: Katedra Przyrzadów Elektronowych Politechniki Warszawskiej (Department of Electronic Instruments, Warsaw Polytechnic Institute)

SUBMITTED: 01Jun64

ENCL: 04

SUB CODE: CP, DC

NO REF SOV: 000

OTHER: 011

ATD PRESS: 4005

Card 3/7

PASZKOWSKI, Bohdan, prof.

What is new in Polish lasers? Horzy techn 18 no.4:11-12 Ap '65.



L 33959-65 EEO-2/EWT(1)/EWT(m)/EWP(t)/EED-2/EWP(b) Pn-4/Pao-2/PL-4 IJP/c)

CC/JD

ACCESSION NR: AP5095862

P/0053/65/000/001/0041/0049

AUTHOR: Paszowski, B.; Rudowski, G.; Gwit, A.

TITLE: PbTe infrared radiation detector 25B

32  
B

SOURCE: Przegląd elektroniki, no. 1, 1965, 41-49

TOPIC TAGS: irradiation detector, <sup>27</sup> <sup>27</sup> lead telluride detector, photoconductive detector

ABSTRACT: PbTe infrared radiation detectors prepared by a modified version of the Young method were investigated. PbTe layers were deposited on a glass base through an evaporation process in an oxygen-atmosphere electric furnace. Photoelectric sensitivity, noise equivalent power, normalized detectivity, and relative spectral sensitivity of the specimens were determined following cooling with liquid nitrogen. The dark resistance was lower and photoelectric sensitivity higher with increased oxygen pressure during the evaporation process. Heating of the deposited layer in vacuum below 550K increased the dark resistance, photoelectric sensitivity, and long-wave sensitivity threshold. Sensitivity with regard to blackbody radiation at 500K approached 7000 v/w; normalized detectivity (500K, 500 cps, 1 cps) was approx  $2 \times 10^8$  (cps)<sup>1/2</sup> cm/w; the long-wave sensitivity threshold was 5-5.8  $\mu$ . Orig. art. has: 11 figures and 1 table. [KM]

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L 33959-65

ACCESSION NR: AF5005862

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: CB, HP

NO REF SOV: 000

OTHER: 011

ATD PRESS: 3209

*PASZKOWSKI, Bohdan*

POLAND

PASZKOWSKI, Bohdan; MICHALOWICZ, Jerzy

Department of Electronic Devices (Katedra Przetwarzania  
Elektronowych), Warsaw Polytechnic Institute

Warsaw, Przebieg elektroniki, No 7, July 69, pp. 19-57.

"Vacuum-tight Seals with Saponin".

PASZKOWSKI, Bohdan; WOLINSKI, Wieslaw

Vacuum-tight seals, germanium to glass, and germanium to kovar. Przegl elektroniki 3 no.11:648-651 N '62.

1. Katedra Radiotechniki, Politechnika, Warszawa.

PASZKOWSKI, Bohdan; MICHALOWICZ, Jerzy

Vacuum tight seals with sapphire. Przegl elektroniki 4  
no.7:353-355 JI '63.

1. Katedra Przyrzadow Elektronowych, Politechnika, Warszawa.

PASZKOWSKI, Bohdan, prof. mgr inz.

From electronic tube to laser. Horyz techn 16 no.10:22-23  
0 '63.

1. Politechnika, Warszawa.

POLAND/Electronics - Vacuum Technique

H\_9

Abs Jour : Ref Zhur - Fizika, No 11, 1958, No 25757

Author : Kaszkowski Bohdan, Wolinski Wlodek  
Inst : Faculty of Radio Engineering, Institute of Communications,  
Warsaw, Poland  
Title : Production of High-Purity Antimony with the Aid of Vacuum  
Distillation.

Orig Pub : Elektronika, 1957, 3, No 12- 3.21

Abstract : The authors indicate the importance of antimony and its alloys in electronics and give a brief survey of the fields of application of these materials. A detailed description is given of the technology of obtaining pure antimony by vacuum distillation and of the suitable equipment. It is indicated, that with vacuum distillation it is possible to attain a purity of antimony above 99.999%. Bibliography, 22 titles.

Card : 1/1

L 14454-65 EEO-2/ENG(j)/EWA(k)/EWT(d)/FED/ENT(1)/EPF(c)/EEC(k)-2/EPF(n)-2/  
 EEC-l/EPR/EEC(t)/T/EEC(b)-2/ENP(k)/EED-2/ENP(b)/EWA(m)-2/EWA(h) Pm-l/Pn-l/Po-l/  
 Pf-l/Pac-l/Pr-l/Pu-l/Peb/Pl-l/Pu-l/Pl-l IJP(c)/AFWL/BSA/ASD(a)-5/SSD/AFETR/AFTC(p)/  
 RAEM(a)/RAEM(c)/RAEM(e)/ESD(gs)/ESD(t) WG/JD  
 ACCESSION NR: AP4045929 P/0053/64/000/007/0313/0319

AUTHOR: Paszkowski, Bohdan; Wolinski, Wieslaw; Adamowicz, Tadeusz; B  
Nowicki, Marian; Stefanik, Tadeusz; Kowalski, Andrzej

TITLE: He-Ne gas laser of the Warsaw Polytechnic Institute

SOURCE: <sup>27 21</sup>Przeglad elektroniki, <sup>5-</sup>no. 7, 1964, 313-319

TOPIC TAGS: helium neon laser, <sup>25</sup>laser mode excitation, laser modu-  
lation, <sup>4</sup>laser output analysis, laser material

ABSTRACT: The new He-Ne gas laser of the Katedra Przyrzadów Elek-  
 tronowych Politechniki Warszawskiej features a steel optical bench  
 on which the optical system and laser tube are mounted coaxially.  
 An improved arrangement of the eccentric mirrors allows them to be  
 inserted from the outside and to be centered in their sockets. Three  
 micrometer screws hold them perpendicular to the optical axis of  
 the system, and small deflections are made possible by additional

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ACCESSION NR: AP4045929

regulating screws. The resonator mirrors are of crown glass covered with 13 dielectric layers of ZnS and MgF<sub>2</sub>, with a radius of curvature of 1300 mm. At 1.153 microns, the coefficient of reflection was 99.5 and 99.99% and the coefficient of transmission was 0.3 and 0%, without and with a gold coating, respectively. The quartz laser tube, 1150 mm long and 12 mm in diameter, was found to resist power leakage only when the side quartz-glass windows were fused directly to the tube by a torch and cooled gradually. Setting and adjusting of the entire system was effected with the aid of an autocollimator. The medium was a He-Ne mixture at a helium-to-neon pressure ratio of 0.7 to 0.1 mm Hg. Excitation was by means of an external high frequency ( $f = 30$  and  $40$  MC) or an internal DC field. Maximum tube power is produced by a larger number of electrodes (5--8 per meter), whereas the greatest degree of output power modulation and minimum distortion is achieved with the smallest number of electrodes (3 per meter). The laser radiation power was determined with the bench thermally uncompensated, using a germanium photodiode standardized against a black body. To obtain

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L 11454-65

ACCESSION NR: AP4045929

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the true radiation power, account must be taken of the damping by the filter-objective system, which amounts to 50.7%. Other laser characteristics are: maximum output rate 12.5  $\mu$ w/w, mode stability better than 8 hours, and divergence angle  $\approx 5'$ .

ASSOCIATION: Katedra Przyrzadów Elektronowych Politechniki Warszawskiej (Department of Electronic Devices, Warsaw Polytechnic); Centralne Laboratorium Aparatury Pomiarowej i Optyki (Central Laboratory of Measurement and Optical Apparatus); Polskie Zakłady Optyczne (Polish Optical Plants)

SUBMITTED: 00

ENCL: 00

SUB CODE: EC

NO REF SOV: 000

OTHER: 003

Card 3/3

~~Bohdan~~ Paszkowski, Bohdan  
POLAND/Electricity - Semiconductors

G-3

Abs Jour : Ref Zhur - Fizika, No 1, 1958, 1310  
Author : Buras Bronislaw, Paszkowski Bohdan  
Inst : -  
Title : Urgent Problems in the Physics of Semiconductors in Their  
Technical Applications.  
Orig Pub : Zesz. probl. nauki polsk., 1957, No 8, 31-72; dyskus. 388-  
389  
Abstract : No abstract.

Card 1/1

PASZKOWSKI, C.

Polynomials, all roots of which are real. p.165

ANNALES POLONICI MATHEMATICI (Polaka Akademia Nauk)  
Warszawa, Poland  
Vol. 5, no. 2, 1958

Monthly List of East European Accession (EEAI) LC, Vol. 9, no. <sup>Jan.</sup> 1960

Uncl.

PASZKOWSKI, C.

A certain property of the best uniform approximation. p.195

ANNALES POLONICI MATHEMATICI (Polska Akademia Nauk)

Warszawa, Poland

Vol. 5, no. 2, 1958

Jan.

Monthly List of East European Accession (FEAI) LC, Vol. 9, no.1, 1960

Uncl.

PASZKOWSKI, J.; WOLK, R.

Technological classification of elements stamped out of steel sheets and generalized technological processes; introduction to standardization of the technological processes of stamping machinery. p.372.

MECHANIK. (Stowarzyszenie Inzynierow i Technikow Mechanikow Polskich)  
Warszawa, Poland. Vol.28, no.10, Oct. 1955.

Monthly list of East European Accession. (EEAI) LC, Vol.9, no.1, Jan.1960

Uncl.

PASZKOWSKI, J.

Universal construction. p. 22

BUDOWNICTWO WIEJSKIE. (Ministerstwo Rolnictwa i Ministerstwo Panstwowych  
Gospodarstw Rolnych) Warszawa, Poland. Vol. 11, no. 10, Oct. 1959

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 2, Feb. 1960

Uncl.

PASZKOWSKI, Marian

Organization of economic and scientific-technical cooperation  
with foreign countries. Przegl techn 81 no.20:7-3 '60.

KOWARZYK, H.; KOWARZYK, Z.; JAGIELSKI, J.; OLEJNICZAK, P.; PASZKOWSKI, P.

Premises for the unification of electrocardiography and vector-  
cardiography. Pol. tyg. lek. 20 no.19:667-671 10 My '65.



JAGIELSKI, Jozef; PASZKOWSKI, Pawel

Vectorcardiographic model studies. Pol. tyg. lek. 20 no.24:  
869-872 14 Je '65.

1. Z Instytutu Immunologii i Terapii Doswiadczalnej Polskiej  
Akademii Nauk im. Ludwika Hirszfelda i Katedry Patologii  
Ogolnej i Doswiadczalnej AM we Wroclawiu.

KOWARZY, Hugon; KOWARZYKOWA, Zofia; JAGIELSKI, Jozef; KUBISZ, Tadeusz;  
RASZKOWSKI, Pawel

Regular lead networks in vectorcardiography. Pol. tyg. lek.  
19 no.21:777-780 18 My'64

1. Z Katedry Patologii Ogolnej i Doswiadczalnej Akademii Medycznej  
nej we Wroclawiu i z Instytutu Immunologii i Terapii Doswiad-  
czalnej Polskiej Akademii Nauk imeni Ludwika Hirszfelda we  
Wroclawiu.

KOWARZYK, Hugon; KOWARZYKOWA, Zofia; DYBA, Konrad; JAGIELSKI, Jozef;  
KUBISZ, Tadeusz; PASZKOWSKI, Pawel.

A proposed network of vectorcardiographic leads. Pol. tyg. lek.  
19 no.22:820-823 25 My'64

1. Z Katedry Patologii Ogolnej i Doswiadczalnej Akader ii Me-  
dycznej, z Katedry Geometrii Wykreslnej Politechniki i i  
Instytutu Immunologii i Terapii Doswiadczalnoj Polskiej  
Akademii Nauk im. L. Hirszfelda we Wroclawlu.

PASZKOWSKI, S., mgr

Combined mine and factory circles of the Association of Mining  
Engineers and Technicians. Przegl techn 85 no.3:10 19 Ja  
'64.

P. SZCZESNI, S.: STASZCISNI, J.

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Herring fleet report said of the B-2/1 type with 1,300 t.d.w. p. 1.

INDOWICTA GOSYOWE. (Stowarzyszenie Inżynierów i Techników Lotnictwa P. L. Włd.,  
Sekcja Chrobotow) Warszawa, Poland.  
Vol. 1, no. 1, Mar. 1952.

Monthly list of East European aircraft (TUM) 10, Vol. 1, no. 7, p. 1.

Incl.

PASZKOWSKI, Stanislaw T., mgr inż.

Some suggestions concerning the protection of industrial  
property rights. Izegl techn 86 no.145 3 JA '65.

STASZEWSKI, Janusz, mgr inz., prof. nadzw.; PASZKOWSKI, Stanislaw,  
mgr inz.

The B-64 type factory mother ship Pioniersk. Bud okretowe  
Warszawa 9 no.6:189-198 Je '64.

1. Technical University, Gdansk (for Staszewski). 2. Central  
Ship Design Office No. 1, Gdansk.

L 13268-63

EWT(d)/FCC(w)/BDS AFFTC IJP(C)/JXT(DE)

S/044/63/000/003/003/047

AUTHOR:

Paszkowski, S.

52

TITLE:

The theory of uniform approximation. I. Non-asymptotic theoretical problems.

PERIODICAL:

Referativnyy zhurnal, Matematika, No. 3, 1963, 21, Abstract 3E102. (Rozpr. Mat., no. 26, 177 pp, English).

TEXT:

In the reviewed first part of the monograph, problems of uniform approximation are treated for a finite and fixed number of parameters with special attention to problems encountered in methods for effective construction of the best (Chebyshev) approximations and approximations close to them. The book reviewed here is limited to the case of rational-polynomial approximations to continuous functions in one variable. This set of problems is treated thoroughly, with many new results included. A considerable share of these results are those of the author (part are published for the first time, for example, Section 14 of Chapter IV and many items of Chapter III); others are presented in a creatively reworked form. The book consists of four chapters subdivided into 16 sections. We shall give a concise summary. The basic

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S/044/63/000/003/003/047

The theory of uniform approximation .....

notation is:  $C_F$  is a space of continuous real functions  $\xi$  defined on a closed, bounded set  $F \subset R_1$  with the norm

$$\|\xi\| \equiv \|\xi\|_F \equiv \|\xi\|_{C_F} = \max_{t \in F} |\xi(t)|;$$

$W_n$  is a space of polynomials

$$p_n(t) = \sum_{j=0}^n a_j t^{n-j};$$

$\pi_{nF} = \pi_{nF}[\xi]$  is the "best" polynomial, that is, producing the minimum deviation  $\|\xi - p_n\|$  when  $p_n \in W_n$ ;  $E_n = E_n(\xi, F)$  is the value of this minimum; the author calls the points  $u_k$  ( $k = 0, \dots, n+1$ ) of deviation (or maximum deviation)  $\pi_{nF}$  from  $\xi$  ( $n, F$ )-points; we shall write it in a more highly differentiated manner ( $n^*$ ,  $F$ )-points when we are speaking of a set

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The theory of uniform approximation .....

of the  $(n, F)$ -points of a Chebyshev alternance. In a number of the items it is assumed that  $F = I \equiv [-1, 1]$  (although  $I = F$  is frequently omitted in the notation above), or

$$F = S_m \equiv S_m(t_0, t_1, \dots, t_{m-1}) = \{t_j\}_{j=0}^{m-1};$$

$$t_{r\nu} = -\cos \frac{\nu\pi}{r} \quad (\nu = 0, \dots, r)$$

are points of maximum deviation of the polynomial  $T_r(t) = \cos(r \arccos t)$  from zero on  $I$ ;

$$\theta_{r\nu} = \cos \frac{(2r+1-2\nu)\pi}{2r} \quad (\nu = 1, \dots, r)$$

are zeros of  $T_r(t)$ .

Chapter I (Sections 1-3) contains a somewhat expanded elucidation of classical factors connected with the names of Chebyshev, Chebyshev-Markov, Borel, and de la Vallée-Poussin. Extremal properties of  $T_n(t)$  outside  $I$  and outside  $[\theta_{n1}, \theta_{nn}]$

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The theory of uniform approximation .....

are indicated. Revised explicit expressions  $\pi_{nI}[\xi]$  are given for

$$\xi = \frac{1}{t-c} (|c| > 1), \quad \xi = \frac{1}{t^2-c}, \quad (|c(1-c)| < 0, n=2k).$$

$$\xi = \frac{t}{t^2-c} (|c(1-c)| < 0, n=2k+1)$$

in a form proposed for the first two cases by Hornecker (Chiffres, 1958, 1). The necessary and sufficient conditions are given (Paszowski, s., Rozpr. Mat., no. 14, 1957, Warszawa) so that for two given polynomials  $P_n, P_{n+1}$  and two numbers  $e_1 > 0, e_2 > 0$  there exists a function  $\xi$  such that  $P_n = \pi_{nI}[\xi], P_{n+1} = \pi_{n+1I}[\xi]$ .

$e_1 = E_n(\xi, I), e_2 = E_{n+1}(\xi, I)$ . Chapter II (Sections 4-8). We note first (Section 4) the theorem: If  $F$  possesses a center of symmetry  $c$ , then, setting

$$\frac{1}{2} [\xi(t) + \xi(2c-t)] = \xi_1(t), \quad \frac{1}{2} [\xi(t) - \xi(2c-t)] = \xi_2(t).$$

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The theory of uniform approximation .....

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we have

$$E_n(\xi; F) > \max\{E_n(\xi; F), E_n(\xi; F)\}. \quad (1)$$

In addition (Section 5), different lower bounds for  $E_n$  are given which are based on the general theorem of de la Vallee Poussin-Kirchberger. For the case  $F = I$ , and assuming the existence of an expansion of  $\xi$  in powers of  $t$  or in polynomials of the system  $\{T_r(t)\}$  which converges on  $I$ , the author presents different estimates of  $E_n(\xi; I)$  ascending essentially to those in the dissertation of S. N. Bernshteyn and making use of a special set  $S_{n+2} = \{t_{n+1, \nu}\}_{\nu=0}^{n+1}$ .

In Section 6 the author considers S. N. Bernshteyn's estimate in an expanded form in the case of existence of a continuous  $\xi^{(n+1)}(t) \neq 0$  on  $I$ . Section 7 is devoted to lower bounds for the ratio  $E_{n+1}(\xi) : E_n(\xi)$  when  $\mathcal{M}_n[\xi]$  has already been found (exactly or approximately) on the basis of an estimate of the measure of the sets.

$$\lambda_n = O(\epsilon), \quad |\xi(t) - \pi_n(\xi; t)| > \lambda E_n(\xi). \quad (2)$$

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The theory of uniform approximation ....

In Section 8 the author discusses the dependence of the quantity  $E_n(\xi; [a, b])$  on the interval of approximation.

Chapter III (Sections 9 - 12). The distribution of  $(n)$ -points on the interval of approximation. Section 9 (Bounds depending on the value of the ratio  $E_{n+1}:E_n$ ) elucidates the author's investigations, including results he published previously (Referativnyy zhurnal, Matematika, 1960, 5888). With the given conditions  $E_{n+1}(\xi) : E_n(\xi) \leq h < 1$ , the author succeeded in including  $(n^*)$ -points  $u_k$  ( $k = 0, \dots, n+1$ ) of the Chebyshev alternance of the function  $\xi$  in exactly defined intervals  $J_k \equiv J_{nhk} = [\alpha_{nhk}, \beta_{nhk}]$  whose boundaries (except  $\alpha_{nh0} = -1$  and  $\beta_{nh, n+1} = 1$ ) are expressed by the abscissas of characteristic points of the graphs of certain polynomials  $T_{nkg}$  ( $g = \frac{1-h}{1+h}$ ) which are special generalizations of the polynomials  $T_n$ . When  $h$  is sufficiently small the intervals  $J_k$  turn out to be automatically nonintersecting; knowledge of them

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The theory of uniform approximation ...

permits a corresponding reduction in computational work, replacing  $I$  by the union  $\cup J_k$  ( $k = 0, \dots, n+1$ ) in the numerical construction of the best polynomials  $\mathcal{P}_n[\xi]$ , for example, by the reviewer's second polynomial algorithm.

The converse of the previous reasoning produces another important result -- the lower bound of the quantity  $E_{n+1}(\xi)$  by the found value of  $\mathcal{P}_n[\xi]$  -- in all cases of the discrepancy between

$$(u_n)^{n+1} c(u_{n+1}, a) = \left\{ -\cos \frac{\lambda \pi}{n+1} \right\}_{\lambda=0}^{n+1}$$

Another cycle of investigations by the author (Sections 10 - 12) was devoted to study of the distribution of  $(n^*)$ -points on  $I$  based on assuming the existence and constancy of the signs of continuous derivatives of certain orders  $p$  of the function  $\xi(t)$  with  $t \in I$ . A theorem of S. N. Bernshteyn serves as the starting point here. In particular, citing polynomials of any two-parameter family, for example, the polynomials of Ye. I. Zolotarev (they are discussed in more detail in Chapter IV), for comparison instead of polynomials of a

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The theory of uniform approximation ...

one-parameter family  $T_r$ , the author clarifies the possibility of including  $(n^*)$ -points  $u_k$  of the function  $\xi$  in smaller intervals with ends at points of deviation of the above mentioned polynomials.

Chapter IV (Section 13 - 16). The theory of the reviewer's method of "equating maxima" used for constructing uniformly best polynomials  $\pi_{nF}[\xi]$  with unbounded accuracy is set forth in Section 15. Modifications of this method indicated by Hornecker, Bretton, Curtis and Frank, and others are noted (Section 16). Still other (of linear nature) methods for constructing polynomials which produce "relatively good" uniform approximation for multiply differentiable  $\xi(t)$  on  $I$  are considered (Section 13). In particular, the method of removing sections of the Taylor's series expansion if realized by tabulated Zolotarev polynomials in addition to the polynomials  $T_r(t)$ . In Section 14 of this chapter, almost all of which is devoted to investigations of the author that are published for the first time, the author considers more special approaches associated with approximate numerical construction of tabulated series of the best polynomials which are functions of the parameter  $\lambda$ :

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The theory of uniform approximation ...

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$$\pi_n[\xi(t, \lambda)] = \Pi_n(t, \lambda) = \sum_{j=0}^n a_j(\lambda) t^{n-j} \quad (3)$$

in particular, when  $\xi(t, \lambda) = f_\lambda(t) = t^{n+2} + \lambda t^{n+1}$ , where for fixed  $n$  the parameter  $\lambda$  runs through a sequence of values  $\lambda_0, \lambda_{\pm 1}, \lambda_{\pm 2}, \dots$ . Subsection 14.1 contains an analog developed by the author of the parametric method of S. N. Bernshteyn (Sobr. Soch., v. 1, pages 46-51) applicable in this case to a twice continuously differentiable  $\xi(t, \lambda)$ . More precisely, the author examines an analog of the method of approximate (local in respect to  $\lambda$ ) realization of the polynomials  $\Pi_n(t, \lambda)$  obtained by S. N. Bernshteyn in the case of a holomorphic  $\xi(t, \lambda)$  by means of two-term sections of expansions in powers of  $\lambda$  of the desired  $2n + 2$  determining quantities  $\alpha_j(\lambda), \rho(\lambda) \equiv E_n[\xi(t, \lambda)]$   $u_k(\lambda)$  ( $j = 0, n; k = 1, n$ ). In the author's method successive steps from  $\lambda_1$  to  $\lambda_1 + d\lambda_1 = \lambda_{1\pm 1}$  are accomplished by numerical integration of the corresponding system of  $2n + 2$  differential equations. Another solution of the problem is given in Subsection 14.2 which is applicable, in a more special manner,

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to the problem of numerical construction of the Zolotarev polynomials  $\xi_{n+2}^{\lambda_i}(t)$ .

After establishing some principal properties of these polynomials on an elementary basis, the author formulates an essentially different (as compared with 14.1) effective method in which it is necessary to apply numerical integration to just a basic system of  $n$  differential equations in order to determine the interior points of deviation  $u_x(\lambda)$ . The author obtains this system of differential equations by starting with a new method of comparing one of the differential equations which appeared in Ye. I. Zolotarev's classical memoir and an equation analogous to that used in some works by Ye. V. Voronovskaya. (See in particular Referativnyy zhurnal, Matematika, 1957, 317).

[Abstracter's note: Complete Translation.]

Card 10/10

PASZKOWSKI, S.

Information Center in the Fablok Locomotive Factory. Przegl techn 85  
no.4:10 26 Ja '64.

PASZKOWSKI, S.

The theory of uniform approximation. Pt.1. Rozprawy matemat  
26:1-176 '62.

PASZKOWSKI, S. (Warszawa)

The electronic digital computer Strela-4. Zastos mat 5 no.1:67-96  
'60. (REAI 10:1)

1. Instytut Matematyczny Polskiej Akademii Nauk  
(Russia--Electronic digital computers)

PASZKOWSKI, S. (Warszawa); WRONA, R. (Wroclaw)

Routine flow-diagrams. Zastos mat 5 no.4:391-410 '61.

1. Instytut Matematyczny Polskiej Akademii Nauk, Instytut Badan  
Jądrowych Polskiej Akademii Nauk, i Katedra Matematyki Politechniki  
Wroclawskiej.

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Uniform approximation of continuous functions by rational functions.  
Zastos mat 6 no.4:441-458 '63.

PASZKOWSKI, S. \_

The joyful days of the Szczakowa Window Glass Plants.  
Przem mat budowl 9 no.24:4 Je '62.

PASZKOWSKI, S.

6000 propositions and the first results; the resolutions of the 4th Plenum of the Central Council of the Polish United Workers Party have been carried out by the Lenin Metallurgical Werks in Nowa Huta. Przegl techn no.41:8 12 0 '60.



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MYCIELSKI, Jan; PASZKOWSKI, S.

A generalization of Chebyshev polynomials. *Bul Ac Pol mat* 8 no.7:  
433-438 '60.

1. Institute of Mathematics, Polish Academy of Sciences. Presented  
by E. Marczewski.

(Chebyshev polynomials)

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Obstacles in the way of technical progress analyzed by engineers  
of the Lenin foundry. Przegl techn 81 no.9:23-24 '60.

PASZKOWSKI, Sergiusz

The better utilization of labor and equipment "Action R" in the  
Szczakowa Industrial Works. Przegl techn 84 no.42:11 20 0 :63.



PASZKOWSKI, S. (Warszawa)

A few remarks on compilatory systems. Rocznik matematyczny 4 no.2:203-208  
'61.

(Programming(Electronic computers))

PASZKOWSKI, S.

Remarks to the paper "The Numerical Problems of Uniform Approximation." p. 279

ZASTOSOWANIA MATEMATYKI. (Polska Akademia Nauk. Instytut Matematyczny)  
Warsawa, Poland. Vol. 4, no. 3, 1959

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 2, Feb. 1960

Uncl.

PASZKOWSKI, S. (Warszawa)

External code for automatic digital computers. Zastos mat 5 no.4:  
379-390 '61.

1. Instytut Matematyczny Polskiej Akademii Nauk, i Instytut Badan  
Jadrowych Polskiej Akademii Nauk.



PASZKOWSKI, STANISLAW.

Zasady kierowania zdalnego pociskami raketowymi. (Wyd. 1. Warszawa, Poland)  
Wydawn. Ministerstwa Obrony Narodowej, 1958. p. 259.

Monthly list of East European Accessions Index (EEAI), LC, Vol. 8, no. 6, June 1959  
uncla.

PASZKOWSKI, Stanislaw

The stability of multidimensional systems with cross couplings  
between channels. Archiw automat 4 no.3/4:295-318 '59. (EEAI 9:7)

1. Wojskowa Akademia Techniczna.  
(Electronic control) (Electronic circuits)

~~PASZKOWSKI, S.~~

"On the accuracy of approximation with nodes. In English."

p. 745 (Bulletin) Vol. 4, no. 11, 1956  
Varsowie, Poland

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

MANUSCRIPT, 1.

The number of the calculator is 1000. It is composed of  
several straight lines. It is composed of 1000.  
(S. 1000) MANUSCRIPT. Vol. 1, p. 1000. Warsaw, Poland.

St: North Atlantic Treaty Organization (NATO). Vol. 1, p. 1000.  
(S. 1000).

✓ Paszkowski, S. On approximation with nodes. *Rozprawy Mat.* 14 (1957), 63 pp.

2

Let  $T = \{t_1, \dots, t_m\}$  be a fixed set of points of  $[a, b]$ . For a continuous function  $\xi(t)$ ,  $a \leq t \leq b$ ,  $\epsilon_n(\xi)$  denotes the degree of uniform approximation of  $\xi$  by polynomials  $\omega_n$  of degree not exceeding  $n$ ; while  $\epsilon_n(\xi, T) = \min \max_i |\xi(t_i) - \omega_n(t_i)|$  (where the minimum is taken for all  $\omega_n$  satisfying the conditions  $\omega_n(t_i) = \xi(t_i)$ ,  $i = 1, \dots, m$ ) is the degree of approximation of  $\xi$  with nodes  $t_i$ . In the first part of the paper the author proves theorems of the type (\*)  $\epsilon_n(\xi, T) \leq C_n \epsilon_n(\xi)$  for  $n \geq N$ , where  $N$  and  $C_n$  depend on  $T$  and  $a, b$  but not on  $\xi$ . One can take  $C_n = 2$  with some unspecified  $N$  [for a somewhat better result see Paszkowski, *Bull. Acad. Polon. Sci. Cl. III.* 4 (1956), 745-748; MR 19, 137]. Some other values for  $C_n$  and  $N$  are also given; the case  $m = 2$  is discussed in detail. The second part deals with properties of two best approximations  $\omega_n, \omega_{n+1}$  of degrees  $\leq n$  and  $n+1$ . Properties of the roots of the equation  $\omega_n(x) = \omega_{n+1}(x)$  and of the Tchebyshev points of  $\omega_n$  and  $\omega_{n+1}$  are considered. This leads to variants of the known theorem which describes the rate of growth of a polynomial of degree  $n$  outside of  $[-1, 1]$  in terms of the growth of the Tchebyshev polynomial  $T_n$ . Suppose that  $T$ , two polynomials  $\omega_n, \omega_{n+1}$  of degrees  $\leq n$  and  $n+1$

CG  
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Paszkoński, S.

2

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respectively, and numbers  $0 \leq e_{n+1} < e_n$  are given. Rather involved necessary and sufficient conditions are derived for the existence of a continuous function  $\xi$  for which  $\omega_n$  and  $\omega_{n+1}$  are polynomials of best approximation with nodes  $T$  and with  $\epsilon_i(\xi, T) = e_i$ ,  $i = n, n+1$ .

G. G. Lorentz (Syracuse, N.Y.).

PASZKOWSKI, S.

On the Weierstrass approximation theorem. In English. p. 206.  
(COLLOQUIUM MATHEMATICUM. Vol. 4, no. 2, 1957. Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. VOL. 6, no. 12, Dec. 1957.  
Uncl.

PASZKOWSKI, Stanislaw

Multidimensional control systems. Archiw automat 6 no.2/3:185-194  
'61. (EEAI 10:9)

(Automatic control)



PASZKOWSKI, S.

On the number of affinely different sets. In English. p. 211.  
(COLLOQUIUM MATHEMATICUM. Vol. 4, no. 2, 1957, Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no.12, Dec. 1957.  
Uncl.

PARIS, 21.

The problem of the nucleus of probability. ... elements of a nucleus of the  
pace. in french.

.. 37 (CHIMIE MATHÉMATIQUE) Journal, Vol. 18, No. 1, 1967

10: Monthly Index of European Accessions (M.I.E.A.) Vol. 6, No. 1, October 1967

Paszkowski, S.

Paszkowski, S. On the accuracy of approximation with nodes. Bull. Acad. Polon. Sci. Cl. III. 4 (1956), 745-748.

Let  $\mathcal{C}$  denote the class of all continuous functions on the closed interval  $I=[a, b]$  with the norm

$$\|\xi\| = \max_{t \in I} |\xi(t)| \quad (\xi \in \mathcal{C}).$$

Let  $W_n$  be the class of algebraic polynomials of degree at most  $n$ . Then it is usual to consider the error of best approximation of  $\xi$  by polynomials of the class  $W_n$ ; it is given by

$$e_n(\xi) = \inf_{\Psi \in W_n} \|\xi - \Psi\|.$$

One can generalize this. Given the "nodes"

$$T = (t_1, \dots, t_m)$$

such that  $a \leq t_1 < t_2 < \dots < t_m \leq b$ , let  $W_n(\xi; T)$  be the class of all polynomials  $\omega$  of degree  $n > m$  for which  $\omega(t_k) = \xi(t_k)$  for  $k=1, 2, \dots, m$ . Define

$$e_n(\xi; T) = \inf_{\omega \in W_n(\xi; T)} \|\xi - \omega\|.$$

1-FW

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1/2

Parjowski, S.

The author proves that if  $m \geq 3$ , and  $n \geq 14\{p/c\} + 12$ , where

$$p = \min \left\{ 6(b-a), \frac{m-1}{\pi} (2d - (m-1)c) \right\},$$

$$c = \frac{1}{2} \min_{1 \leq k \leq m-1} (t_{k+1} - t_k),$$

$$d = \max_{1 \leq k \leq n} \max (t_k - a, b - t_k),$$

and  $\{p/c\}$  denotes the integral part of  $p/c$ , then

$$\varepsilon_n(\xi; T) < 2\varepsilon_n(\xi)$$

for every  $\xi \in \mathcal{S}$ .

K. Chandrasekharan (Bombay).

1. FW  
2

3/2

S/194/62/000/001/004/066  
D201/D305

16-6800

AUTHOR: Paszkowski, S.

TITLE: Some remarks about external codes

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 1, 1962, abstract 1-1- 11 r (Roczn. Polsk. towarz. mat., ser. 2, wiadom. math., 1961, 4, no. 2, 203-208)

TEXT: The rate of development, over the last few years, of automatic computers has exceeded all expectations. Thus, e.g. Ferranti (G.B.O.) have developed the computer 'Atlas', which in 1 second can perform 830 thousand operations of addition or 420 thousand multiplications on 47 digit-binary numbers. One such machine can replace hundreds of thousands of operators using electric calculating machines. However great the achievements in the speed of operation, the content and the form of operation of computers are rather primitive, since the machine performs basically only the simplest arithmetical and logical operations. It is shown that some of the logic operations may be performed by a man much faster, e.g. the

VB

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Some remarks about ...

S/194/62/000/001/004/066  
D201/D305

machine can simultaneously compare only 2 different numbers, while a man can visually compare many numbers. Because of this, a modern electronic computer should not, in the author's opinion, be called 'an electronic brain', as is often done by the press. The basic deficiency of electronic computers is the need to divide any operation into elementary operations. To obviate this and other deficiencies of computers, the development and use of the so-called external code with each computer is suggested. Such a code could be used with all machines having a sufficient storage capacity. The following operations could be performed by using the external code: Arithmetic and logic operations, change of control, printing of results, etc. By determining the nature of commands required for consecutive execution of the above operations, it would also be possible to prepare the corresponding program of calculations and to introduce it into the memory machine. To obtain the independence of the external on the internal code, a very elastic system of its operations should be evolved. The system of an external code has considerable advantages, because it makes it possible to introduce into the memory device a series of commands and its control program

VB

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Some remarks about ...

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developed beforehand and externally into the machine. It is necessary, however, to take into consideration the fact that the commands of the external code should be related to the corresponding commands of the internal code. The transition from one system of commands to the other is achieved by means of two types of specially developed programs, which are called 'programming' and 'interpreting'. The system of the 'external code' has several disadvantages and the next problem is a detailed design of such a system which could be applied to a wide range of problems. This requires further theoretical investigation in various mathematical fields. ✓/B  
/ Abstracter's note: Complete translation. 7

Card 3/3

13(2)

PHASE I BOOK EXPLOITATION

POL/2516

Paszkowski, Stanislaw, Candidate of Technical Sciences, Docent

Zasady kierowania zdalnego pociskami rakietowymi (Principles of the Remote Control of Rockets) /Warsaw/ Wyd-wo Min. obrony narodowej, 1958. 259 p, Errata slip inserted. 1,000 copies printed.

Reviewer: Stanislaw Paszkowski, Candidate of Technical Sciences, Docent; Eds.: Zenon Mendygral, Master in Engineering, and Maria Kowalska, Master in Science; Tech. Ed.: Helena Malczewska.

PURPOSE: This book may be useful to engineers and technicians concerned with automatic control and radar.

COVERAGE: The author discusses the construction and operation of remote control systems for guided missiles and presents fundamentals of remote control and telemetry. He also discusses target-seeking missiles and presents examples of telemetering systems. Chapter II was written by S. Jarosinski, Engineer, Master of Science. The author thanks Docent S. Slawinski, Candidate of Technical Sciences, for reviewing the manuscript and K. Dziecilowski, Engineer, Master of Science, for editing  
Card 1/9



Principles of the Remote Control of Rockets POL/2516

the text. There are 14 references: 9 English, 3 Soviet and 2 German.

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Table of the Most Important Guided Missiles

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P/031/62/007/001/006/021  
D265/D308

AUTHOR: Paszkowski, Stanisław  
TITLE: A two-dimensional sampled-data control system  
PERIODICAL: Archiwum automatyki i telemekhaniki, v. 7, no. 1-2,  
1962, 63 - 70

ABSTRACT: A two-dimensional automatic control system with a sampler with level memory is discussed. The continuous part of the system is represented as a two-dimensional unit with asymmetric cross-couplings. The mathematical model of the system is reduced to the relations between samples taken from certain quantities at equal intervals of time. For the investigation of the experimental models the method of numerical operators of St. Bellert (Ref. 1: Zeszyty Naukowe Politechniki Warszawskiej, Elektryka, no. 3, 1954, and Ref. 2: Kozprawy Elektrotechniczne, v. 5, no. 4, 1959) was applied. The principle of this method which is simple and easy in application is explained. The numerical operator calculus is similar to the calculus of polynomials. The analysis system is illustrated by a simple

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A two-dimensional sampled-data ...

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example. There are 6 figures.

ASSOCIATION: Wojskowa akademia techniczna (Military Technical Academy)

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WAWRSKI, E. WOLNY.

Distr: LFI

✓ Propagation of acoustic waves in a fluid that is near the critical state and shows density fluctuations. Walenty Paszkowski. *Pamięt. Towar. Przyjaciół Nauk. Wydział Mat.-Przyrod., Proc. Komisji Mat.-Przyrod.* 8, No. 1, *Państw. Akad. Nauk*, 137-44 (1957) (English and Russian summaries).—Math. An inhomogeneous wave equation for the potential of momentum is derived. Zero slope of P-V isotherms is assumed, and calcns. are carried to 3rd-order terms. J. Stock

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PASZCISKI, Z.

Planning and account verification on aerial building and assembling works to be performed by the track services. p. 133.

PRZEZNAD WOIENNY MOCOW. (Mylawietwa Komunikacyjna) Warszawa, Poland.  
Vol. 10, no. 5, May 1958.

Monthly List of East European Accessions (EEAI), LC, Vol. 6, no. 1, Apr. 1959.

Uncl.

PASZKOWSKI, Zdzislaw, mgr. inz.

Beyond-limit possibilities of meeting the investment needs.  
Przeł kolej drog 14 no.4:76-78 Ap '62.

POLAND

OLAKOWSKI, Tadeusz, PESKA, Stanislaw, and PASZNIK, Jan, Wojewodztwo Sanitation and Epidemiology Station (Wojewodzka Stacja Sanitarno-Epidemiologiczna) in Anin (Director: Dr. J. ZASZTOWT) and the Epidemiology Research Office (Zaklad Epidemiologii) of the State Institute of Hygiene (Panstwowy Zaklad Higieny) [in Warsaw] (Director: Prof. Dr. J. KOSTRZEWSKI)

"Epidemiological Analysis of Epidemic Hepatitis in 11 Powiats of the Wojewodztwo of Warsaw in 1956-1961."

Warsaw, Przeglad Epidemiologiczny, Vol 17, No 3, 63, pp 181-193

Abstract: [Authors' English summary modified] Findings, reported in 4 figures and 7 tables, show that children account for 50% of the cases. In urban population, where incidence is higher, infection affects mostly 5-year olds; in rural -- mostly 7-year olds. Anti-epidemic measures were of little effect: Disinfection was late in 74% of the areas, and half the cases either not hospitalized or hospitalized after the 4 days following onset. Unless prevented, Poland may expect increased incidence in 1963-1966. 5 refs: 3 Polish, 2 Czech,

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PASZTHORY, I. BAKOS, M. SCHUGEMIL, K.

Investigation of copper catalysts carried by pumice. I. Correlation between the particle size of the carrier and the catalyzed reaction velocity in the case of gaseous hydrogenation reaction. II. Correlation between the quantity of the catalyst and the catalyzed reaction velocity in the case of hetergeneous catalytic gaseous hydrogenation. p. 52.

(Magyar Kemiai Folyoirat. Vol. 63, no. 2/3, Feb./Mar. 1957. Budapest, Hungary)

SO: Monthly List of East European Accessions (REAL) LC, Vol. 6, no. 10, October 1957. Uncl.

PASZTHORY, Imre.

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✓ Catalytic hydrogenation of acetaldehyde in the gas phase. Imre Paszthory, Miklós Bakos, and Károly Schügerl (Szerves Vegyipari Kutató Intézet, Budapest). *Vegyipari Kutató Intézet Közleményei* 4, 316-22(1954).—The lab. app. consists of a 80 X 1000 mm. steel tube of 5.7 l. vol., having a heat exchange surface of 0.25 cu.m. It is immersed in a heated Dowtherm bath. Cu deposited on S was used as catalyst. The reaction temp. was 100-200° and the product consisted of EtOH with a max. of 1% AcH 0.5% AcOH, and 1% AcOEt. Excess H did not affect the reaction. By using a novel calog. method, the results of tests in the lab. reactor were used for the construction of a pilot plant size adiabatic exptl. reactor consisting of a 250 l. catalyst bed (260 X 4500 mm.). Catalyst particle size was 12 mm., insulation was provided by a 70 mm. thick stone-wool and a 230 mm. thick glass wool layer. Within the reactor 3 evenly spaced thermoelements were fitted to enable observation of temp. distribution. G. J. ERZSELY.

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Distr: 4E2c/4E4j

LIPPICH, Laszlo; MOLNAR, Pal; PASZTHY, Miklos

Surveying and tracing works in connection with wire-rope ways. Geod  
kart 13 no.1:22-25 '61. (KEAI 10:6)  
(Wire-rope transportation)



GEMESI, Gyula, dr.; PASZTHY, Otto, dr.

Ambulatory treatment of *Entamoeba histolytica* infection in children. Orv.hetil. 101 no.49:1750-1753 4 D'60.

1. Vas megye Tanácsa Közegészségügyi-Jarvanyügyi Allomása és Vas megye Tanácsa Markusovszky Kórháza Rendelőintézete Gyermekszakkrendelese.

(TETRACYCLINE ther)  
(AMEBIASIS ther)

PASZKOWSKI, B., SOLTYS, Z., GAJDA, A.

"Vacuum silicon melting." p. 323. (ARCHIWUM ELEKTROTECHNIKI Vol. 2, No. 3/4, 1953. Warszawa, Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4, No. 4. April 1955. Uncl.

PASZKOWSKI, S.; MYCIESKI, J.

A problem of calculus of probability. In French . p. 188  
(Studia Mathematica. Vol. 15, no. 2, 1956.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957, Uncl.

Paszkowski, S.

Paszkowski, S. Sur l'approximation uniforme avec des noeuds. Ann. Polon. Math. 2 (1955), 118-135.

Let the functions  $p_1(x), \dots, p_n(x)$  be continuous in a closed interval  $I'$  and such that every non-trivial linear combination  $w(x) = a_1 p_1(x) + \dots + a_n p_n(x)$  has at most  $n-1$  distinct roots in  $I'$ . Let  $I$  be a subinterval of  $I'$ ,  $t_1, \dots, t_m$  points in  $I$ . The author considers the problem of best uniform approximation in  $I$  of functions  $f(x)$  defined in  $I'$  and continuous in  $I$  by functions  $w(x)$  subject to the conditions  $w(t_j) = f(t_j)$ ,  $j=1, \dots, m$ . Generalizations of theorems of Tchebycheff and de la Vallée Poussin are obtained. For example,  $w(x)$  of best approximation has the following property. There are  $l$  points in  $I$  where  $|f(x) - w(x)|$  attains its maximum, which together with the  $t_j$  form a sequence  $s_1 < \dots < s_{l+m}$ . Define inductively  $\eta_i = \text{sign} [f(s_i) - w(s_i)]$  if  $f(s_i) - w(s_i) \neq 0$ ,  $\eta_i = -\eta_{i-1}$  in the opposite case. Then there are at least  $n$  changes of sign in the sequence  $s_i$ . G. G. Lorents (Detroit, Mich.).

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