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Mathematics as a study of sets with structures	J. N. Kapur	The Mathematics Seminar, 4, 126, 1967.	
Isomorphism of mathematical systems	J.N. Kapur	The Mathematics Seminar, 4, 135, 1967.	
Some activities of the committee on undergraduate programme in Maths. of U.S.A.	J. N. Kapur	The Mathematics Seminar, 4, 179-195, 1968.	



Title	Authors	Journal
Operations Research	J. N. Kapur	Polytechnic annual, 35-44, 1967.
Some recent efforts for improvement of school mathematics in India	J. N. Kapur	The Mathematics Teacher (USA) Vol. 61, No.3, 321-327, 1968, also in the Mathematics Education.
Some personal reminiscences of late Prof. Narasinga Rao	J. N. Kapur	The Mathematics Teacher (India), Vol. IV, No.1, 1-11, 1968.
The state of school mathematics in India	J. N. Kapur	Summer Institute Bulletin Jadavpur.
The attitude of an applied mathematician	J.N. Kapur	The Mathematics Education, Vol. III.

### BOOKS

Title	Authors	Published by
A first course in abstract Algebra	J.N. Kapur S. K. Gupta	Ram Chand & Co., Delhi
Elements of Probability	S. K. Gupta	NCERT
Linear Programming for schools	S.K. •. Gupta	Arya Book Depot

Vibrations of Beams carrying Mass	L.S. Srinath Y.C. Das	Jr. Appl. Mech. Sept. 1967
Analysis of scattered light methods in Photoelasticity	L. S. Srinath	Submitted Exptl; Mechanics
Non-destructive Methods in Three-dimensional Photoelasticity	L. S. Srinath	Report distributed to Advanced Summer School Participants- Experimental Stress Analysis B.L.T. Sindri, 1967.
On the flow between a rotating and a stationary disk	G. L. Mellor p. J. Chapple V. K. Stokes	J. Fluid Mech. (1968), Vol. 31, part I, pp. 95-112
Effects of couple stresses in fluids on hydromagnetic channel flows	V. K. Stokes	Physics of Fluids, Vol. 11, No.4, 1968.

Title	Author.	Published by	
Free Convection from a horizontal circular surface with mass injection and suction	V. Kadambi	Proc. Ind. Congo Appl. Mech. December 1967	
Second Order Perturbation Analysis of Free Convection from a Vertical Surface	V. Kadambi	Proc. Ind. Congo Appl. Mech. December 1967	
Refrigeration, Air Conditioning and Environmental Control in India	V. Kadambi F. W. Hutchinson	Text Book: Prentice Hall of India (Pvt) Ltd. June 1968.	
Kinematic properties connected with rotation	K.S. Yajnik P. Lieber	Presented at tenth Midwestern Mechanics Conference held at Colorado in August 1967.	■
Dynamic Reversibility in Fluid Flows	K.S. Yajnik	Proc. of 10th Congress of Theoretical and Applied Mech. (1965) published in Dec. 1967.	0'1 IM
On the flow of Powdered Materials	K.S. Yajnik R. p. Gupta	Proc. of All India Symposium on Refrigeration and Airconditioning and Environmental Control, Nov, 1967.	
Symmetric solutions of equation $e = en$ , where $C$ is a complex number,	B. L. Dhoopar	Applied Mechanic Conference June 12-14, 68 of ASME at Brown University (To be published in the journal of Applied Mechanics)	

A finite-difference procedure for solving the equations of the two-dimensional \ boundary layer

S. V. Patankar  
D. B. Spalding

Int. J. Heat Transfer, Vol. 10 pp. 1389-1411, 1967.

Calculation of compressible turbulent boundary layer on a flat plate

S. V. Patankar

Aeronautical Research Council, A.R.C. 29564, 1967.

The hydrodynamic turbulent boundary layer on a smooth wall, calculated by a finite-difference method

K.H. Ng  
S. V. Patankar  
D. B. Spalding

Paper to be presented at a conference in Stanford Univ. U. S.A. in August 1968.

Transient Response of Liquid Flow in PipeLine Systems

V. Srinivas R.  
W. Besant

Presented at ASME, Fluid Power Engineering, Winter Annual Conference, Nov. 1967.

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J. M. Chakraborty

Journal of the Institution of Engineers (India) Vol. XLVIII, No.9, Pt. GE3, May 1968.

Determination of some qualitative factors of the performance of Gears (In Russian)

J. M. Chakraborty

Journal of the Leningrad Polytechnical Institute "Trudi LP1". Section Design and calculations of Mechanics No. 285, 1967.

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Title	Authors	Journal
Mechanical Causes of Noise in Electrical Machines	K.K. Saxena	Journal of the Institution of Engineers (India) Vol. 47, No.9, part ME 5.
Temperature Time curves for Tanker Transportation	K. K. Saxena	Proceedings of All India Symposium on Refrigeration Airconditioning and Environmental Control in the Dairy Industry.

**METALLURGICAL ENGINEERING**

Title	Authors	Published by	
Surface energies from transport studies, surface and interfaces, I Chemical and Physical characteristics, Ed. Burke, Reed and Weiss.	J. M. Blakely p.S. Maiya	Syracuse Univ. Press, Syracuse (NY), 1967.	0- vi
Surface self diffusion and surface energy of nickel	p.S. Maiya J. M. Blakely	Journal of Applied Physics, Vol. 38, No.2, 698-704, 1967.	

Gauge-invariance broken symmetries and field current identities	T. Dass	Phys. Rev. Letters, July, 1968.
. Broken symmetries and Goldstone theory	T. Dass	Proceedings of the xth Symposium on Cosmic Ray's and High Energy Physics, Aligarh, Dec. 1967.
Structure of Light Nuclei	R. M. Singru I. Kakkar R .S. Kaushal Y.R. Waghmare	IIT Tech. Rep., Phy. 5/68
Correlation between the total number of neutrons emitted, the scission point configuration and the total kinetic energy in fission	S. Mukherji G. K. Mehta	Proc. of Nuc. Phy. Symposium, Madras 1968.
An Effective Interaction for Nuclear Spectroscopy Calculations	G. K. Mehta	Proc. of Nuc. Phy. Sym., Madras 1968.
Energy Levels of Light Nucleri	M. C .• Jain G.K. Mehta Y.R. Waghmare	IIT Kanpur Tech. Report, Phy. 7/68.

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Title	Authors	Journal
Fermion Trajectory Parametrisation and Superconvergence	R. Ramachandran	Phys. Rev. <u>166</u> , 1528 (1968)
Gribov - Pomeron Singularities in N/D formalism	R. Ramachandran G. C. Joshi	Phys. Rev. <u>166</u> (1968)
Implications of I = 1 rule for decay	R. Ramachandran A. Kumar	Proc. of VIth Anniversary Symposium, Mat. science, Adyar.
Meson Baryon interactions according to a non-linear realisation of U(3) x U(3) with symmetry breaking	R. Ramachandran A. Kumar	Phys. Rev. (to be published)
Statistical Analysis of $V^{51}(p, p)$ reaction	V. K. Deshpande D. K. Sood	Nuclear Phys. 1968.
Shell Model Calculations with Yale Potential	Y. R. Waghmare	Proc. of Nuc. Phy. Sym. Madras 1968
Energy Levels of Light Nuclei	M. C. Jain G.K. Mehta Y.R. Waghmare	IIT Kanpur Tech. Report No. Phy 7/68
An effective Interaction for Light and Intermediate Nuclei	K.P. Joshi G. K. Mehta Y. R. Waghmare	IIT Kanpur Tech. Report No. Phy 6/68

	Y.R. Waghmare	No. Phy. 9/68	
Valence Band in Bismuth	V. K. Chopra R. K. Ray	Proc. of the Symposium on Nuclear Physics and Solid State Physics, Madras 1968	
A comprehensive Listing of Changes required in IBM709 /7090/7094 programmes to make them run on IBM 704/7040/7044 machine	S. Bhatnagar R. Tewari	IIT Tech. Rep. No. Phy. 5/67	
On Crystal Structure Determination of Bis-Pyrrol Aldimine Cu II and Methyl Bis-Pyrrol Alomine Cu II	R. Tewari R.C. Srivastava	CSIR Convention Feb •. 1968	0- 00
Bond lengths and angles in Bis- salyc ylaldoximato- nickel	R.C. Srivastava E. C. Lingafetter p.C. Jain	Acta. Cryst. <u>22</u> , 922, 1967	
Localized Magnetic Moment of a Paramagnetic Impurity in a Crystal	C. Mehrotra	Indian J" Pure. Appl. Phys. <b>1</b> , 561 (1967).	
Debye Waller Factor for Fe~7 in Platinum, Palladium and Copper	K. Patnaik J. Mahanty	Pres ented at the CSIR convention at Waltair (Feb. 1968) .	



Title	Author.	Journal
Luminescence Mechanism of CaS(Zr) Phosphor	M.S. Tomar	Nucl. Phys. and Solid State Physics Symp. Madras 1968.
Photo Luminescence spectra of heavily doped single crystal of KCl with TIC 1	S. C. Sen	Nucl. Phys. Solid State Physics Symp., Madras 1968.
Thermoluminescence of CaF <sub>2</sub> : (Ce + Mtl) System	S. C. Sen	Nucl. Physics and Solid State Physics Symp. Madras 1968.
Low Temp. Sp. Heat of B.C.C. Alloys of 3d Transition Elements with 20 percent Al.	T. M. Srinivasan H. Claus	J. Phys. Chem. Solids, 28 (1967), 711.
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Acoustic Phonon Spectra of Helical Molecules	V.D. Gupta S. F. Trevino	Nature <u>214</u> , 1325 (1967).
Helix-Coil Transition In Some Macromolecules	V.D. Gupta A.K. Gupta	J. Polymer Science <u>1</u> , 2773 (1967).
Vibration Spectra of Polyglycine	V.D. Gupta	J. Chem. Physics <u>48</u> , 3008 (1968)

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EPR of $Mn^{2+}$ in $(NH_4)_2SO_4$	B. V. R. Chowdari P. Venkateswarlu	Proc. Ind. Acad. Sci, LXVII, Sect. A, No. 3(March 1968).
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Paramagnetic Resonance Studies of $Cu^{2+}$ : $NH_4 Br$	M. D. Sastry P. Venkateswarlu	Proc. Ind. Acad. Sci 66A, 208 (1967).
.ESR of $VO^{2+}$ in $NH_4Cl$	M.D. Sastry p. Venkateswarlu	Mol. Phys. • .!i, 161 (1967)
Line width studies in the EPR of $VO^{2+}$ in $NH_4Cl$	K. V.S. Rao M.D. Sastry	Chern. Phys. Letts. ~, 20 i 1968.
~ EPR of $Cu^{2+}$ in $(NH_4)_2SO_4$	G. Chaddha	J. Phys. Soc. Japan 24, No.5, 976 (May 1968).
Study of relaxation in a symmetrical three spin- system (AB <sub>2</sub> ) by Nuclear Magnetic Double Resonance	Anil Kumar B.D. Nageswara Rao	Physics Conference 1968 Madras.

Title	Authors	Journal
Energy Level Scheme Nb <sup>4+</sup> in RbMoO <sub>4</sub>	K.K. Sharma	Proc. of the American Physical Soc. Meeting April, 1968.
IR and NMR correlations of some fluorobenzene s	S. Mohanty V. N. Sarin	CSIR Jan 21st - 23rd Waltair 1968.
Far Infrared Spectra of Uranyl Salts	H.D. Bist	J. Mol. Spectry. Aug. 1968.
The out-of-plane vibrational modes of phenol in ground and first singlet excited states	J. C. D. Brand H. D. Bist	International Conference on Spectroscopy, Bombay (India) Proc. 1., 264 (1967).
Spectroscopic studies of the Pyridine 1 <sub>2</sub> complex	H. D. Bist W. B. Person	J. Phys. Chem. 71, 2750 (1967)
The 2750 <i>R</i> electronic band system of phenol Part II. Extended vibrational assignments and Band contour analysis	H.D. Bist J. C. D. Brand D.R. Williams	J. Mol. Spectry., 24, 413 (1967).
The vibrational spectrum and torsion of phenol	H.D. Bist J. C. D. Brand D. R. Williams	J. Mol. Spectry., ~ 402 (1967)
Thermodynamic Properties and ultraviolet spectra of ICN complexes with some n-Donors	H. D. Bist W. B. Person	J. Phys. Chem. 71 (10), 3288 1967.

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Optical absorption spectrum of  $\text{LiO}^+$  doped NaF:

J. P. Srivastava

J. Chem. Phys. 48,  
July 1968.

Absorption spectrum of  $\text{MnF}_2$

J. P. Srivastava  
A. Mehra  
P. Venkateswarlu

Proceedings of Solid State and  
Nuclear Physics Symposium  
1968.

Optical Absorption of  $\text{Co}(\text{NH}_3)_6^{2+}$   
 $4\text{H}_2\text{O}$

P.A. Narayana  
A. Mehra  
P. Venkateswarlu

Ganad. J. Phys. 46, 325 (1968)

Electronic absorption of nickel  
acetate tetrahydrate

P.A. Narayan  
A. Mehra  
P. Venkateswarlu

Ganad. J. Phys. 46 (1968)

## CHAPTER XVII

## SEMINARS AND COLLOQUIA

## AERONAUTICAL ENGINEERING

Fatigue hardening	V. Sreenivasan
Conical cambered wings	V.S. Holla I. I. Sc •• Bangalore
Opportunities for engineers in India	Dr. O. P. Mediratta Development Establishment, Bangalore.
Characteristics of sweptback wings in subsonic flow	S. C. Raichhani
Plasma electron energy	Dr. (Miss) Sakuntala Banaras Hindu University
Plastics in Aircraft	Ashok Kumar Jain
Shock tubes and their research application	Dr. M. L. N. Sastri Solid State Physics Lab. New Delhi
Supersonic Transport	Sharad Tripathi Naresh Jain
A multiple time-scale approach to the analysis of linear systems	Dr. R. V. Ramanath Princeton University
Mechanisms in Fatigue of metals	P.N. Murthy
Some considerations in structural design processes	P.N. Murthy J. K. Sridhar Rao

Analysis of compound modes in circular plates	K.S.R.K. Prasad' P.N. Murthy
Problem of planning 'in education seminar on aeronautical engineering-education	P.N. Murthy (Delivered at IISco Bangalore)
Structural integrity of Solid-pellant rocket grains	P.N. Murthy (Paper presented at the All India Symposium at Rocket Technology at the B.I. T., Ranchi)
Application of Brittle Lacquer Technique in experimental stress analysis	P.N. Murthy (Two lectures at the advanced summer school on Experimental Stress Analysis, at Bihar Institute of Tech., Sindri, Bihar).
Properties of Magnesium Alloys	N. G.R. Iyengar P.N. Murthy XII congress of Indian Society of Theoretical and Applied Mechanics Dec. 18th to 21st 1967 at IIT, Delhi)
<p>MECHANICAL ENGINEERING</p>	
Heat Exchange	S. Viswanathan
Steam Fractionation	P.G. Bhandarkar
Combustion Kinetics	N. Mohan Das
Text Flow	J.S. Bajaj
Thermodynamics and Process	Prof. Bock IIT Madras

Development of Indian Chemical Industry	Prof. G.P. Kane Industrial Adviser, Govt. of India.
Mass Transfer from Drops	Prof. Beauer, Univ. of Berlin
Instrumentation in Chemical Industry	A.S. Athaide, FCI, Trombay
Application of NMR in Chemical Engineering Research	D.N. Saraf-
Chemical Engineering Education . Symposium at IIT <i>1M</i> .	A. B. L. Agarwal
Chemical Industry	Mr. Kapoor, DCM, Delhi.

## CHEMISTRY

Delivered six lectures on Crystal field theory at the summer school on Coordination Chemistry held at Indian Institute of Science, Bangalore (1967 Summer)	p. T. Narasimhan
Valence Bond and Molecular Orbital Study of Weak Interactions in Molecules, IIT., Madras, Oct. 27, 1967.	p. T. Narasimhan
Applications of Nuclear Quadrupole Resonance Spectroscopy to the Study of Inorganic Compounds. Invited Talk at the Symposium on Magnetic Resonance in Inorganic Complexes held by the Indian Chemical Society at Roorkee University Nov. 4, 1967.	p. T. Narasimhan

- nd Field Theory and Magnetic  
nance In chemistry (six lecl) U.  
G. C. Extension Lectures rdar  
Vallabhai Patel Univer-  
Gujerat Nov. 28-Dec. I, '67. P. T. Narasimhan
- tron Spin Resonance Spectra P.T. Narasimhan  
:. O. Calculations of Spin Den>,  
Association of Magnetic nance  
Spectroscopists, SymLm,  
Varanasi, Jan.1, 1968.
- nt advances in the Applications p. T. Narasimhan Lgnetic  
Resonance Spe.ctroscOFo¥  
.emistry - Special Lecture at  
ldian Science Congress, Vara-  
Jan. 9, 1968.
- [. R. Phys ical Res earch Cornrni- P. T. Narasimhan  
ymposium, Andhra Univer-  
Waltair Presented two papers  
ed ESR and MO study of Tetra-  
'cyclopentadienone Radical  
L and High Resolution Proton  
etic Resonance Spectra of  
Cyclopropyl Derivatives  
24, 1968\_
- ture and Electron Spin Reso- p. T. Narasimhan , Spectra  
of Free Radicals-  
at the Chemistry Dept.,  
:adras, Feb. 26, 1968.
- Remarks Concerning the p. T. Narasimhan  
~r Method for the Determi-  
1 of Asymmetry Parameters  
= 3/2 Nuclei from NQR Zeeipectra  
Paper Presented at ~clear and  
Solid State Physics Jsium held by  
Dept. of Atomic :y, Madras.



- Two lectures on Survey of Recent Developments in NMR Spectroscopy, CIBA Research Centre Bombay, March 11th and 12th '68. P. T. Narasimhan
- Applications of Overhauser Effect-Talk at the Organic Chemistry Symposium sponsored by CIBA at Bombay, March 13, 1968. P. T. Narasimhan
- Spin Densities and hyper fine structure in the ESR Spectra of Free Radicals University of Gorakhpur, April '1968. P. T. Narasimhan
- M. O. Theory and Molecular Structures, Royal Institute of Chemistry, Madras Section, May 31, 1968. P. T. Narasimhan
- Oxidations with Metal Oxides :delivered at CIBA - Research Symposium held in Bombay :during March, 1968. M. V. George
- Photochemical Transformations delivered at IIT, Madras m May 28, 1968 M. V. George
- total Synthesis of Cephalosporin C S. Ranganathan
- intriguing problems in Organic Reaction Mechanisms, CDRI, Lucknow S. Ranganathan
- Conformations of peptide antibiotics and Hormones-Delhi University March 9, 1968 D. Balasubramanian

Infrared spectra of Polymers Sri Ram Institute. Delhi. March 29. 1968	D. Balasubramanian
N.M.R. of Proteins and Peptides, Assoc. of Mas. Res. Spectros. Banaras, Jan. 1, 1968	D. Balasubramanian
Nuclear charge distribution in fission	S. Mukherji
Mossbauer Determination of Iron in Store Meteorites	E. L. Sprenkel Segel Argonne D.N. Saraf Chemical Engg. , IIT Kanpur.
Dynamics of Water Transport across Membranes	R.M. Singru Physics Department IIT /Kanpur.
Position Annihilation Studies	S. Rajappa, Ciba, Bombay
Hydroxamic Esters in Peptide synthesis	S. Rajappa, Ciba, Bombay
Woodward Reagents in Peptide synthesis-	D. Balasubramanian IIT /Kanpur.
The problem of Protanation of amides	M.R. Das, TIFR, Bombay
Solvent interactions in free radicals.	M.R. Das, TIFR, Bombay
ESR and Ion Pair Association in Radicals	N. G. Sreenivasan, ICRI, Madras
Structural aspects of carboxy- peptides	K. Ganesh Das, NCL, Poona.
Mass spectrometry of organic ions	

Is the Definition of Resonance , Energy in HMO Theory Correct?	J. C. Patel, IIT /K
Synthesis of Di-and Sesqui- Terpenoids	p. C. Dutta, IACS, Calcutta
Attempts to replace Pt in Ba TiO <sub>3</sub> Capacitors	M. Merriam, IIT /K
Recent developments in the Ab- Initio Calculation on Diatomic molecules	G. Das, IIT/K
Dynamics of microbial growth	D. Ramakrishna, IIT/K
Polyphosphoric acid	D. Wilhelm, TIT /K
Caerulomycin, Total Synthesis	S. Ranganathan, IIT /K
Studies in Nonaqueous solvents	R.C. Paul, Punjab, Chandigarh
Electronic and IR spectra of SiF <sub>2</sub>	V. M. Khanna, Delhi Univ., Delhi.
Spin Lattice Relaxation in Gases	Miss K. Lalitha, IIT /K
Vibrational Spectra of poly,mers	V.D. Gupta, TIT /K .
The Dioxygenyl Cation	N. K. Jha, IIT /Delhi
Some Studies on 6-amino5- Hydroxybenz o- cycloheptane	Dr. Nitya Nand CDRI, Lucknow
Cosmic rays in Earth Sciences	D. Lal, TIFR, Bombay
Photochemical behaviour of transition metal complexes	B. Behera
Abnormal lines in atomic spectra	G.C. Chaturvedi

luer effect and its applito chemical bonding	A.N. Garg
Ition of Monte Carlo T echto problems in physics	M.S. Gopinathan
lination' of the relative f s pin- s pin coupling Ltsby multiple reso- echniques	M.S. Gopinathan
coulometry	M.B. Jadhav
{ coefficients in light ing	M. B. Jadhav
.tion of NMR to some probl inorganic chemistry	T .S. Kannan
tion at the dropping mer- electrode	Lalithambika Bai
Ltom approximation and ature dependence in iso- 'ect	Lakshmi
e size and anomalous heats ion of magnesium oxide	M. Natarajan
f Chemical reactions by <i>fa</i> ve technique	N. V. Pillai
es, lattice parameters ects in solids	S. Ramdas
oo rd ina tion	B. Singh
n of ligand s in metal lCes	B. Singh
nal magnetic moments of ompounds	p.S. Zacharias

Inorganic Multiplet Bonds	p. S. Zacharias
Dewar benzene	K.S. Balachandran
Azirines	K.S. Balachandran
Ins ect sex-attractants	G. Nagendrappa
Pyridinium ylids	G. Nagendrappa
Oxymercuration of olefins	D.S. Sethi
Recent advances in organo boron chemistry	D.S. Sethi
Admantane	S.N. Singh
Bullvalene	Reported by S. N. Singh
Photochemical rearrange- ments reported	R. Vaidynathaswamy
CIVIL ENGINEERING	Staff and Students
One-day Seminar on Civil Engg., Pres ent and Future	
Limit Analysis of R. C. Beams and Frames	P .S. Rao, IIT /Madras
Limit Analysis of Continuous Prestressed Concrete Beams	S. K. Mallick, IIT /Kharagpur
Inelastic Analysis of R. C. Cylin- drical Shells	Dr. R. S. Ayyar, IIT /Bombay
Oxidation Ponds	Dr. H. C. Preul Univ. of Cirmcinati
Rense of Water-in industries	Prof. S. J. Arceivala Director, CIPHERI, Nagpur

Horizontal Flow, Filter	S. V. Patwardhan Univ. of Roorkee
Biotechnical Studies in Civil Engineering	Mr. V.S. Krishnaswamy Director, GSI, Lucknow
Soil-Structure Interaction	K.S. Subba Rao IISc. Bangalore
Physico-chemical Approach to bearing Strength of Soils	Dr. T.S. Nagaraj IISc. Bangalore
Design and Construction of Irrigation Canals	Mr. A. N. Harkauli S.E., CDD U. P. Irrigation Dept., Lucknow
Design of Irrigation Structures	Mr. A. Rehman E.E., COD U. P. Irrigation Dept. Lucknow.
Planning of Industrial Projects	Mr. Gahlot Chief Engineer Tivani Structural Allahabad
Instruction Plant and Machinery	Dr. Mahesh Varma WRDTC, Roorkee
<b>STATISTICAL ENGINEERING</b>	
Majorant Matrices	M.S. Varadarajan
Some aspects of stochastic control	R. K. Ragade
~ Spectrometers	Mrs. T. Lakshmi Viswanathan
Identification of systems	B. Sarkar

Fabrication of thin film devices	F. C. Jain
Adaptive control	V. V. Mandke
Electric Power Transmission by Super-Conducting cable	M. F. Merriam IIT/K
Mass spectrometers	P. Saxena
A new variational process & impulse response	S.D. Agashe
The Schwarz canonical forms and its network implications	R. Viswanathan
Design of UHF Power Amplifier exploiting hybrid integrated circuit technique	R.N. Biswas
Digital simulation of hybrid computers	B. Sarkar
Optimal Design of Networks	H. V. Sahasrabudhe
Design of a resistively mismatched amplifiers	V. p. Namjoshi
Syntax and semantics oriented translators	H.N. Mahabala
N - person games	U.R. Prasad
A new variational process & impulse response (Pt. II)	S.D. Agashe
Stability methods for distributed parameter systems	M. Ananda Mohan
On Pontryagin's maximum principle	S.D. Agashe

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On Pontryagin's maximum principle	S. D. Agashe



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	R. K. Ragacte
	S. K. Mullick
stability of immittance es	
locked-loops I	K. B. Ohri
locked loops II	p.S. Moharir
Controlled Motors	, N. Jagan Mohan Rao
ervers & observability	Dr. p. C. Das
ion and Modernization: Processes of Continuity .ange in India (Organized .aras Hindu University and red by the U.S. Educational ltion in India in June / July	B.D. Misra""
lited a paper on Leaderld Development in the lr on Sociology of Eco- Development at Saugar sity in Jan. 1968.	K. K. Singh
ipated in the seminar on ng for Social Change lred by the Council for Development at India :ltional Centre, Delhi in 1968.	K. K.Singh
Structure and Social e sponsored by the Ford ation, New Delhi in May	K. K. Singh

- Presented a paper entitled Social Watershed of Entrepreneurial Growth in India at the seminar on Socio-economic Change in India, 1871-1961, organised by Indian Institute of Advanced Study, Simla in September, 1967 and also presided over one of the its sessions. K.N. Sharma
- Presented a paper in the form of presidential address to one of the sections of National Seminar on Student Unrest organised by Sociology Department, Banaras Hindu University in December, 1967. K. N. Sharma
- Participated in the All India seminar on The Study of Religion in Indian Universities held at Bangalore from 4th to 8th Sept. , 1967 and in the Annual session of the Akhil Bhartiya Darshan Parishad held at Baroda from 25th to 28th Oct'67. K. N. Upadhyaya
- Presented a paper for the symposium on Avidya Ka Swarupa K. N. Upadhyaya
- Participated in the Annual session of the Indian Philosophical Congress held at Varanasi from 27th to 30th Dec. 1967 and presented a paper for the symposium can Metaphysics Survive? K.N. Upadhyaya
- Read a paper entitled Economic Development and Social Research at the seminar on Sociology of Economic Development, Univ. of Saugar, Jan. 1968. K. Prasad

~livered a talk on Recent Tencncies  
~n Monetary Theory at ;SD  
College, Kanpur Feb. 1968

K. Prasad

tended the annual'All India  
19lish Teachers' Conference  
Chandigarh in Dec. 1967  
,d read a paper on Melville's  
mception of Heroism

R. K. Gupta

~esided Over the History of  
lilosophy Section of the Indian  
lilosophical Congress kat maras  
Hindu University. Prented a paper on  
Philosophical )undations of  
Education in a minar at Banaras  
Hindu Univ. ~esented another paper  
on Being Ld Non- Being in a seminar  
at .sva Bharti. Gave three lectures ,  
The Logic of Naturalistic dlacy at the  
Indian AcaQemy of lilosophy at  
Calcutta.

R. Prasad

)litical Philosophy

Prof. Chandmal Sharma  
Jodhpur University

Prof. H. M. Jha  
Patna University

lilosophy and the Modern Age

Prof. Prem Nath  
Punjab University

A.THEMATICS

:>mmutator s in Nilpotent linear  
'roups

V. N. Dixit

Order Structure in the Real number system	V.B. Buch
Intuitionism	Ashwani Kumar
What is dimension in mathematics	D.S. Tomar
Ordered spaces	V.B. Buch
Hypersonic flows	M.S. Sastry
Quasitopological spaces	Ashwani Kumar
Generalization of real number space (open real line)	V.B. Buch
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The role of sequences in topology	S. P. Franklin
Differential equations	p.C. Das
Report on recent mathematical conferences	J.N. Kapur
Bayesian Inference	N.C. Giri
Axiom of choice in intuitionism	D.S. Tomar
(n, m) hyperplanes	Dr. S.C. Saxena North Illinois Univ., USA.
Numerical Analysis	Dr. Riaz Ahmed Usmani Canada
Inaugural address for mathematics club	Prof. Ram Behari Delhi
Non parametric tests	Dr. A. Basu

	Principal Shanti Narayan Delhi
>1 Mathematics in USA	Principal P.D. Gupta Delhi
posium on mathematics tion	Principal Shanti Narayan Principal P.D. Gupta Prof. S. P. Franklin Shri R. C. Sharma Prof. J. N. Kapur
: aspects of compactnes s	Dr. M. K. Singal Delhi University
~r order Barristrows method olynomial equations	Prof. M. K. Jain IIT /Delhi
ion of some diophantine tions	Shri M. V. N ori Bombay
ematics Education activities tional Scienc e Foundation	Prof. W. R. Orton Arkansas University
sh curriculum development a.themaHcs during the las t ears	Dr. A. G. Howson CREDO, U.K.
tness effe-cts in hypersonic	Dr. N. R. Subramainium N • A. L. Bangalore
,ities of mathematical lces division of NAL	Prof. P.D. Varma Kurukshetra
.logical groups	Prof. M. Rajagopalan Madurai University
inuum mechanics	Prof. P.D.S. Varma Kurukshetra University
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Theory of distributions	Prof. M.S. Narasimhan TIFR Bombay-
Mathematics at TIFR Bombay	Prof. M. S. Narasimhan TIFR Bombay
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determination of oxygen i metals bye. m. f. methods ,id elect-rolytes	U • V. Choudhry
:ication of some interme,ses	J. Banerji
y criteria and scale of ,ers	V.Y.S. Kumar'
principles of powder gy- manufacture of powder :d components by the	Dr. p. p. Sinha India Hard Metals Co., Calcutta.
opics in Powder metallurgy :ure of tungsten carbide tools. and other appli-	Dr. P.P. Sinha
19 with cemented carbide 19 the metallurgical )f machi~ing.	Dr. P. p. Sinha
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