

McGill University Archives

McGill University, Montreal Canada



MG4274
Peter P. Silvester Fonds
Accession 2010-0146

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McGill University Archives Finding Aid

Peter P. Silvester fonds

Accession 2010-0146

Dates: ca. 1958 to 2007; predominant 1965-1996

Extent: 2 metres of textual records
39 photographs
1 35mm negative strip
ca. 1100 35mm slides
3 microfiche
ca. 120 electronic disks

Biographical Sketch

Peter (Peet) Silvester, born January 1935 in Tallin, Estonia, was the only son of Helga Peet Silvester and Robert Silvester. When he was 12 years old, Peter Silvester immigrated with his mother to Canada. They settled in Edmonton, Alberta, where he attended the Victoria Composite High School from which he graduated in 1952. Later, Peter Silvester moved to Pittsburgh, Pennsylvania where he earned his bachelor's degree in Engineering at the Carnegie Institute of Technology. Following his graduation in 1956, Peter Silvester went on to obtain his Masters in Applied Science from the University of Toronto in 1958. At this time, he married his wife, Elisabeth. In 1964, Peter Silvester obtained his PhD from McGill University in Montreal, Canada. Dr. Silvester remained at McGill University until 1995, when he retired and moved to Victoria, British Columbia where he passed away in October of 1996.

Dr. Silvester's professional career began in 1957 when he was hired as a Senior Demonstrator at McGill University. Over the next few years, Dr. Silvester progressively moved to more senior positions, which included receiving tenure in 1971 and full professorship in 1972. He also held administrative posts as the chairman of the Department of Electrical Engineering and established the department's Computational Analysis and Design Laboratory. Aside from his term at McGill University, Dr. Silvester held several appointments as a visiting lecturer, researcher and fellow at universities in London (UK), Florence and Grenoble. Dr. Silvester also played a key role in developing and launching Canada's first degree program in computer engineering. Other career highlights include his role as the founding director of Infolytical Corporation, a software firm engaged in the development and marketing of finite element software for the use in electrical engineering industry, and his consulting work with various public and private organizations, such as General Electric, Xerox, National Research Council and Rutherford Laboratory, to name a few. Following his retirement from McGill University in 1995, Peter and Elisabeth Silvester moved to Victoria, British Columbia, where he held an

honorary professorship at the University of British Columbia and was an Adjunct Professor at the University of Victoria. He held both these positions up until his death.

Peter Silvester is best known for his research on the Finite-Element Method (FEM) and his contributions toward the development of numerical-modeling methods applied to electro-magnetic problems. Additionally, his early work on eddy currents also earned him a gold medal at the first Pan-American Conference on Electrical and Mechanical Engineering. This, along with other research, led Dr. Silvester to work with a small group of researchers on the area of using high-speed computers as a tool for use in engineering design, and ultimately to the development of software engineering. Dr. Silvester wrote and co-authored several books as well as articles, all based upon his research. His fundamental book, "Finite Elements for Electrical Engineers" is commonly regarded as the standard reference book in its field, and has been translated into four different languages. He was also the editor of six other books and the journal *Electrosoft*, a publication for work in software for electrical engineering applications. In 1994, Dr. Silvester was elected a Fellow of the Royal Society of Canada for his contributions and service in the field of computational and electrical engineering. He was also awarded the Fellow of the Institute of Electrical and Electronic Engineers (New York) and the Fellow of the Institution of Electrical Engineers (London). From 1965 until his death, Dr. Peter Silvester had a long and distinguished career as a teacher, mentor and researcher.

Custodial History

The records were kept by the creator until his death. From 1996 to 2009, the spouse of the donor maintained the records until the records were donated to the McGill University Archives.

Scope and Content

The fonds consists of documents, photographs and electronic media relevant to the personal and professional history of Dr. Peter (Peet) Silvester. The scope predominately covers the period from 1965 to 1996, and includes Dr. Silvester's published articles, copies of his books, including some translated editions and 35mm slides and photographs used as illustrations and as visual aids in presentations. His personal papers cover the period from his immigration to Canada and to his death, and include some photographs, correspondence between Dr. Silvester and his wife, Elisabeth, and daily journals.

This fonds is divided into nine series. The first series contains his personal papers, with the remaining series covering his professional career. The second series is largely correspondence, and the remaining seven series relate to his research and publication of articles and books. The series covering correspondence and research are organized by subject, and the articles are organized chronologically.

Source of Supplied Title

Title based upon the content of the fonds.

Arrangement Note

The fonds had a natural arrangement which was preserved. Some series had no formal title, and a title was imposed by the archivist based upon the content of the series.

Language Note

The material is predominately in English.

Restriction Note

Some files are restricted under the *An Act respecting Access to documents held by public bodies and the Protection of personal information* (R.S.Q., chapter A-2.1).

Accruals Note

Further accruals are expected.

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Peter Silvester Fonds

File Listing
Box 1

Year	Increment	Media Code	Series	Sub-Series	File Title	Description of File	Dates	Cross Reference	Comments
2010	0146	01	01	1	[Personal Diary]	personal log book	1989-1991		
2010	0146	01	01	2	[Personal Diary]	personal log book	1992-1994		
2010	0146	01	01	3	[Personal Diary]	personal log book	1994-1996		
2010	0146	01	01	4	[Personal Diary]	personal log book	1995-1996		
2010	0146	01	01	5	[Personal Diary]	personal log book	1974-1980	2010-0146.04.01	6 black and white 6"X10" photographs of winter scenes, tucked inside back of personal log book
2010	0146	01	01	6	Photos	original black & white; colour copies; colour; 35mm negatives	c. 1958-1996	2010-0146.04.02 & 3	11 black and white portraits of PPSilvester, various sizes; 4 colour portraits of PPSilvester, 4"X6"; 6 group photographs, various sizes; 4 black and white wallet photographs of unknown woman; 1 35mm negative strip (negative strip corresponds to printed image in 2010-0146.04.3)
2010	0146	01	01	7	Personal Promotions	private and work related correspondence	1952-1997		
2010	0146	01	01	8	Sabbatic Leaves PPS	correspondence regarding sabbatical leaves	1988-1995		
2010	0146	01	01	9	Retirement PPS	retirement correspondence and financial forms	1995-1996		
2010	0146	01	01	10	PPS final illness	copies medical records and correspondence	1995		
2010	0146	01	01	11	CVs	copies of Silvester's CV	1971-1995		
2010	0146	01	01	12	Bibliography Dec 2006	list of papers and books 1935-1996; copy of article which includes selected bibliography			
2010	0146	01	01	13	Bio-bibliography 2007	article and correspondence	1996-2007		
2010	0146	01	01	14	PPS Obits	copies of obituaries	1996-1998		
2010	0146	01	01	15	PPS funeral	in memoriam and signed paper of guests	1996		
2010	0146	01	01	16	Memorial Service Montreal Nov 96	scrapbook	1996		
2010	0146	01	01	17.1	Condolences (selected)	letters and correspondence	1996-1997		
2010	0146	01	01	17.2	Condolences (selected)	letters and correspondence	1996-1997		

Year	Increment	Media Code	Series	Sub-Series	File Title	Description of File	Dates	Cross Reference	Comments
2010	0146	01	01	18	PPS memorials etc.	correspondence regarding Silvesters' death	1996-1998		
2010	0146	01	01	19	McGill Emeritus	correspondence, convocation booklet and photograph	1996-1997		
2010	0146	01	01	20	Royal Society Obituary	correspondence, photocopy of article	1997-1998		
2010	0146	01	01	21	1992 Memorial	Alta Frequenza Rivista di Elettronica journal	1992		
2010	0146	01	01	22	Memorial Session Montreal 1998	correspondence	1997		
2010	0146	01	01	23	Memorial Poitiers 1998	correspondence and journal	1998		
2010	0146	01	01	24	Memorial Session Stellenbosch 2006	copy of conference paper	2006		
2010	0146	01	01	25		guest book [possibly from funeral service], with photos	c.1996	2010-0146.04.4	3 colour photographs, possibly from the funeral 4"X6"
2010	0146	01	01	26	personal correspondence	correspondence between Peter and Elisabeth	1973-1977		
2010	0146	01	01	27	MSS Montreal English	printouts of english definitions, newspaper article	c. 1980		
2010	0146	01	01	28	MSS A Way with Words	incomplete copy of "the Literate Professional's Guide to Word Proc	1984		
2010	0146	01	01	29		Master of Applied Science Thesis "An Equivalent Circuit for Magn	1958		
2010	0146	01	01	30		PhD dissertation "A Nonlinear Slip-ring Primitive for Generalised E	1964		
2010	0146	01	01	31	Corresp. A-Z	References for and by PP Silvester; personal correspondence from friends and colleagues; resumes; sketches and copies of articles	1976-1996		

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File Listing
Box 2

<i>Year</i>	<i>Increment</i>	<i>Media Code</i>	<i>Series</i>	<i>Sub-Series</i>	<i>File Title</i>	<i>Description of File</i>	<i>Dates</i>	<i>Cross-Reference</i>	<i>Comments</i>
2010	0146	01	02	1	Belmans	correspondence from Belmans	1989-1991		
2010	0146	01	02	2	Crawley	personal correspondence	1988-1989		
2010	0146	01	02	3	Gupta	letter of comments; copy of Silvester article	1990		
2010	0146	01	02	4	Miyoshi	correspondence	1990-1993		
2010	0146	01	02	5	Ni	correspondence; correspondence for conference travel; offprints; resume; visiting scholar correspondence	1991-1996		
2010	0146	01	02	6	Ogawa	personal correspondence	1990-1992		
2010	0146	01	02	7	Renshan	correspondence; copy of article; conference registration	1988-1991		
2010	0146	01	02	8	Santini	copy of article; disks	1994-1995		
2010	0146	01	02	9	Yoshimoto	copy of articles; correspondence; photos	1983-1994	2010-0146.04.5	2 colour photographs, 4 1/2"X3 1/4"
						<i>Ceia series</i>			
2010	0146	01	03	1	Sphermap	bugs with the program	1994-1995		
2010	0146	01	03	2	[untitled]	correspondence on judgement for application of patent; copy of a patent	1994-1996		
2010	0146	01	03	3	Ceia	correspondence on legal case on patent	1994		
2010	0146	01	03	4	Ceia	analysis of Out and metal detector	1994		
						<i>CUP [Cambridge University Press] series</i>			
2010	0146	01	04	1	[CUP]	loose correspondence regarding royalties and publication of the book, Finite Elements for Electrical Engineers	1980-2003		
2010	0146	01	04	2	S & F disks	correspondence for disk orders from the Finite Elements for Electrical Engineers; little correspondence on CUP publication and translation	1990-1994		
						<i>No series listed here</i>			
2010	0146	01	05	1	Computational Mechanics Publications	SPICE 5.25 disks; copy of article Toward a Formal Standard of the SPICE Circuit Description Language; publishing agreement to be editor of conference proceedings; photographs; 3.5 floppy for Data Structures in Engineering Software	1990-1993	2010-0146.04.6	6 black and white photographs, 5"X7"
2010	0146	01	05	2	IREQ	Correspondence for employment contract	1974		
2010	0146	01	05	3	Ontario MTC	Correspondence for employment contract and work proposal	1973-1975		
2010	0146	01	05	4	PRECO	3.5 floppies; correspondence for consulting work; reference material	1994		
2010	0146	01	05	5	Oxford Univ. Press	correspondence for book proposal; royalty payment invoices	1988-1994		
						<i>RSC series</i>			
2010	0146	01	06	1	[RSC]	loose correspondence regarding the Royal Society of Canada; induction into the Royal Society of Canada	1992-1995		

Year	Increment	Media Code	Series	Sub-Series	File Title	Description of File	Dates	Cross-Reference	Comments
						Springer series			
2010	0146	01	07	1	Springer	correspondence, tax forms, publishing agreements	1980-1988		
2010	0146	01	07	2	[Springer]	loose correspondence; royalty invoices	1985-1995		
						No series listed here			
2010	0146	01	08	1	Trinity College	correspondence regarding visiting lecture/fellowship at Trinity College, Cambridge; advent program	1987-1989		
2010	0146	01	08	2	[envelope]	copies of overhead projector transparencies of a lecture	1994		original photocopied and destroyed
2010	0146	01	08	3	[box]	copies of overhead projector transparencies of a lecture (on transparency film Type D for Canon copiers)	1992-1994		original photocopied and destroyed
2010	0146	01	08	4	Finite Element Course	timetable; colour 35mm slides	1987	2010-0146.04.7	50 35mm colour slides
2010	0146	09	08	1	San Miniato	3.5 floppy San Miniato 1992 Overheads	1992		
2010	0146	01	08	5	Lecture Kanazawa & Okayama	5.25 disk; 3.5 floppy; lecture slides	1992		
						[Articles]			
2010	0146	01	09	1	1965	Energy Conversion by Nonlinear Slip-Ring Electric Machines			
2010	0146	01	09	2	1965	Eddy-current modes in linear solid-iron bars			
2010	0146	01	09	3	1965	Analogue Method for determination of Current Distribution in A-C Bus-Bars			
2010	0146	01	09	4	1966	A Practical Skin-effect Computing Network		2010-0146.04.8	2 black and white photographs, 4"X6"
2010	0146	01	09	5	1966	Modal Network Theory of Skin Effect in Flat Conductors		2010-0146.04.9	3 black and white portraits, wallet size
2010	0146	01	09	6	1966 & 1967	Network analog solution of skin and proximity effects problems (1966 & 1967)			
2010	0146	01	09	7	1966 & 1967	AC Resistance and Reactance of Isolated Rectangular Conductors (1966 & 1967)			
2010	0146	01	09	8	1967	Dynamic Resistance and Inductance of Slot-embedded conductors			
2010	0146	01	09	9	1967	Discussion on "Transient Resistance of Conductors" by Tuohy, Lee and Fullerton			
2010	0146	01	09	10	1967-68	TEM Wave Properties of Microstrip Transmission Lines			
2010	0146	01	09	11	1968	Solution of 2-Dimensional Field Problems			
2010	0146	01	09	12	1968	Dynamic Resistance and Inductance of Slot-embedded conductors			
2010	0146	01	09	13	[1968]	Finite Element Solution of Homogenous Waveguide Problems			
2010	0146	01	09	14.1	[1968]	High Order Polynomial Triangular Finite Elements for Potential P	1968		
2010	0146	01	09	14.2	[1968]	High Order Triangular Elements 1968			

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File Listing
Box 3

Year	Increment	Media Code	Series	Sub-Series	File Title	Description of File	Dates	Cross-Reference	Comments
2010	0146	01	09	15	[1968-1969]	Impedance of Nonmagnetic Overhead Power Transmission Conductors	[1968-1969]		
2010	0146	01	09	16	[1968-1969]	The Accurate Calculation of Skin Effect in Conductors of Complicated Shape	[1968-1969]		
2010	0146	01	09	17	[1968-1969]	Contour Plotting Routine for Line Printers	[1968-1969]	2010-0146.10.1	1 microfiche
2010	0146	01	09	18	[1968-1969]	Analysis of Coaxial Line Discontinuities by Boundary Relaxation	[1968-1969]		
2010	0146	01	09	19	[1968-1969]	The Numerical Solution of Dielectric Loaded Waveguides: II-Modal Approximation Technique	[1968-1969]		
2010	0146	01	09	20	[1968-1969]	High Order Finite Element Waveguide Analysis	[1968-1969]	2010-0146.10.2	1 microfiche
2010	0146	01	09	21	[1968-1969]	A General High-order Finite-Element Waveguide Analysis Program	[1968-1969]		
2010	0146	01	09	22	[1968-1969]	Solution of Field Problems by Boundary Relaxation	[1968-1969]	2010-0146.03.1	1 diploma
2010	0146	01	09	23	[1968-1969]	Principles and Analysis of ACSR with Two Mixed Layers	[1968-1969]		
2010	0146	01	09	24	[1968-1969]	Capacitance Determination for Infinite Interdigital Structures	[1968-1969]	2010-0146.10.3	1 microfiche
2010	0146	01	09	25	[1968-1969]	Skin Effect in Multiple and Polyphase Conductors	[1968-1969]		
2010	0146	01	09	26	[1968-1969]	Discussion on "Skin and Proximityeffect in Polyphase Systems on Rectangular Conductors Calculated on an Analog RC Network"	[1968-1969]		
2010	0146	01	09	27	[1968-1969]	Finite Element Solutions of the Two Dimensional Helmholtz Equation	[1968-1969]		
2010	0146	01	09	28	[1970]	Finite Element Solution of Saturble Magnetic Problems	[1970]		
2010	0146	01	09	29	[1970]	Modal Theory of Skin Effect in Single and Multiple Turn Coils	[1970]		
2010	0146	01	09	30	[1970]	Newton-cotes Quadrature Formulae for N-Dimensional Simplexes	[1970]		
2010	0146	01	09	31	[1970]	Boundary-Relaxation Analysis of Rotationally Symmetric Electric Field Problems	[1970]		
2010	0146	01	09	32	[1970]	Finite Element Solution of Dielectric Loaded Waveguides <i>and</i> Numerical Solution of Dielectric Loaded Waveguides: I-Finite	[1970]		
2010	0146	01	09	33	[1971]	Digital Computer Aids to Transmission Line Design	[1971]	2010-0146.03.2	1 diploma
2010	0146	01	09	34	[1971]	Discussion of "Load Analysis of Nonlinear Homopolar Inductor Alternator"	[1971]		
2010	0146	01	09	35	[1971]	Finite Element Programs for the Scalar Helmholtz Equation	[1971]		
2010	0146	01	09	36	[1971]	Analysis of Turboalternator Magnetic Fields by Finite Elements	[1971]		
2010	0146	01	09	37	[1971]	Finite Element Methods for Microwave Field Problems	[1971]		

Year	Increment	Media Code	Series	Sub-Series	File Title	Description of File	Dates	Cross-Reference	Comments
2010	0146	01	09	38	[1971]	A Practical Differentiation Equation Solving Program for Engineering Applications	[1971]		
2010	0146	01	09	39	[1971]	Nonlinear Magnetic Field Analysis of DC Machines Part III. Equipotential Plots Drawn by Computer	[1971]		
		01	09	40	[1971]	Biharmonic Operators for the Waveguide Problem	[1971]		
2010	0146	01	09	41	[1971]	Capacitance and Field Distributions for Interdigital Surface-Wave Transducers	[1971]		
2010	0146	01	09	42	[1971]	Numerical Formation of Finite Difference Operators	[1971]		
		01	09	43	[1971]	Symmetric Quadrature Formulae for Simplexes	[1971]		
2010	0146	01	09	44	[1971]	Variational discretization of the Laplace Operator	[1971]		
2010	0146	01	09	45	[1971]	Finite Element Analysis of Magnetically Saturated DC Machines	[1971]		
2010	0146	01	09	46	[1971]	Scalar Finite Element Program Packages for Two-dimensional Field Problems	[1971]		
2010	0146	01	09	47	[1971]	Finite Elements of Very High Orders in Electromagnetics	[1971]		
2010	0146	01	09	48	[1971]	Projective Solution of Integral Equations Arising in Electric and Magnetic Field Problems	[1971]		
2010	0146	01	09	49	[1971]	Dielectric Load Waveguide Analysis Program	[1971]		
2010	0146	01	09	50	[1971]	A Finite Element Field Plotting Program	[1971]		
2010	0146	01	09	51	[1971]	Finite-element Solution of 2-dimensional Exterior Field Problems	[1971]		
2010	0146	01	09	52	[1971]	Finite Element and Finite Difference Solutions to Waveguide Problems	[1971]		
2010	0146	01	09	53	[1971]	Discussion on "Eddy Current Losses in the Conducting Slabs"	[1971]		
2010	0146	01	09	54	[1971]	A Projective Method for the General Solution of Differential Equations	[1971]		
2010	0146	01	09	55	[1971]	High-order Polynomial Tetrahedral Finite Elements	[1971]		
2010	0146	01	09	56	[1972]	Capacitance of Parallel Rectangular Plates Separated by a Dielectric Sheet	[1972]		
2010	0146	01	09	57	[1972]	Magnetotelluric Modelling by the Finite Element Method	[1972]		
2010	0146	01	09	58	[1972]	Axidymetric Traingular Finite Elements for the Scalar Helmholtz Equation	[1972]		
2010	0146	01	09	59	[1972]	analysis of Antenna Structures Assembled from Arbitrarily Located Straight Wires	[1972]		
2010	0146	01	09	60	[1972]	Mcrostrip Discontinuity Capaciatances for Right Angle Bends, T Junctions and Crossings	[1972]		

<i>Year</i>	<i>Increment</i>	<i>Media Code</i>	<i>Series</i>	<i>Sub-Series</i>	<i>File Title</i>	<i>Description of File</i>	<i>Dates</i>	<i>Cross-Reference</i>	<i>Comments</i>
2010	0146	01	09	61	[1972]	Tetrahedral Polynomial Finite Elements for the Helmholtz Equation	[1972]		
2010	0146	01	09	62	[1972]	Generalised Matrix Inverse Techniques for Local Approximations of Operations	[1972]		
2010	0146	01	09	63	[1972]	Numerical Methods for EHV and Microwave Field Problems	[1972]		
2010	0146	01	09	64	[1972]	Calculation of Inductance of Finite-length Strips and its Variation with Frequency	[1972]		
2010	0146	01	09	65	[1972]	Electrostatics of the Microstrip - Revisited	[1972]		
2010	0146	01	09	66	[1972]	Equivalent Capacitances of Microstrip Open-circuits	[1972]		
2010	0146	01	09	67	[1972]	Finite Element Analysis of Planar Microwave Networks	[1972]		
2010	0146	01	09	68	[1972]	Bubnov-Galerkin Solutions to Wire-antenna Problems	[1972]		
2010	0146	01	09	69	[1972]	Generalised Matrix Inverse Techniques for Local Approximations of Operator Equations	[1972]		
2010	0146	01	09	70	[1972]	Equivalent Capacitances for Microstrip Gaps and Steps	[1972]		
2010	0146	01	09	71	[1973]	A Computer Program for Magnetotelluric Modelling by the Finite Element Method	[1973]		
2010	0146	01	09	72	[1973]	A Finite Element Program Package for Axisymmetric Scalar Field Problems	[1973]		
2010	0146	01	09	73	[1973]	A Finite Element Program Package for Axisymmetric Scalar Field Problems	[1973]		
2010	0146	01	09	74	[1973]	Numerical Modelling of Passive Microwave Devices	[1973]		
2010	0146	01	09	75	[1973]	Analysis of Transformer Leakage Phenomena by High-order Finite Elements	[1973]		
2010	0146	01	09	76	[1973]	Efficient Techniques for Finite Element Analysis of Electric Machines	[1973]		
2010	0146	01	09	77	[1973]	Microstrip Discontinuity Capacitances for Right-angle Bends	[1973]		
2010	0146	01	09	78	[1973]	Triangular Finite Elements for the Generalized Bessel Equation or Order M	[1973]		
2010	0146	01	09	79	[1973]	Projective Analysis of Log-periodic Dipole Antennas	[1973]		
2010	0146	01	09	80	[1973]	A Practical Differential Equation Solving Problem for Engineering Applications	[1973]		
2010	0146	01	09	81	[1973]	Calculation of inductance of finite length strips and its variation with frequency	[1973]		
2010	0146	01	09	82	[1973]	Electrostatic Microstrip Analysis Programs - MICRO and INFSTR	[1973]		
2010	0146	01	09	83	[1974]	A numerical method for the general solution of ordinary differential	[1974]		

<i>Year</i>	<i>Increment</i>	<i>Media Code</i>	<i>Series</i>	<i>Sub-Series</i>	<i>File Title</i>	<i>Description of File</i>	<i>Dates</i>	<i>Cross-Reference</i>	<i>Comments</i>
2010	0146	01	09	84	[1974]	Curvilinear finite elements for two-dimensional saturable magnetic fields	[1974]		
2010	0146	01	09	85	[1974]	A graphical representation for interpreting scalar wave multiple-scattering phenomena	[1974]		
2010	0146	01	09	86	[1974]	The open-circuit magnetic field of a saturated synchronous machine, an experimental and computational study	[1974]		
2010	0146	01	09	87	[1974]	Finite element in computer aided design of electromagnetic devices	[1974]		
2010	0146	01	09	88	[1974]	Finite element solution of saturated travelling magnetic field problems	[1974]		
2010	0146	01	09	89	[1974]	Analysis of the log-periodic V-dipole antenna	[1974]		
2010	0146	01	09	90	[1974]	Fourier transform finite elements for magnetic levitation	[1974]		
2010	0146	01	09	91	[1974]	Finite-element modelling of the inhomogeneous human thorax	[1974]	2010-1046.04.10	2 black and white photographs, various sizes
2010	0146	01	09	92	[1974]	The integral equations of superconductive levitation systems	[1974]		
2010	0146	01	09	93	[1975]	Solution to the interconnected wire-scatterer problem	[1975]		
2010	0146	01	09	94	[1975]	Torque calculation in finite element modelling of electric machines	[1975]		
2010	0146	01	09	95	[1975]	Finite element analysis of steady-state skin effects in a slot-embedded conductor	[1975]		
2010	0146	01	09	96	[1976-1977]	[Review of] An introduction to electromagnetic fields by R.L. Ferrari	[1976-1977]		
2010	0146	01	09	97	[1976-1977]	In defence of canned programmes	[1976-1977]		
2010	0146	01	09	98	[1976-1977]	Radiation and scattering by wire antenna structures near a rectangular plate reflector	[1976-1977]		
2010	0146	01	09	99	[1976-1977]	A finite element program package for magnetotelluric modelling	[1976-1977]		
2010	0146	01	09	100	[1976-1977]	Interconnected rectangular reflectors excited by wire antenna structures	[1976-1977]		
2010	0146	01	09	101	[1976-1977]	Network parameter determination by numerical field analysis	[1976-1977]		
2010	0146	01	09	102	[1976-1977]	Exterior finite elements for 2-dimensional field problems with open boundaries	[1976-1977]		
2010	0146	01	09	103	[1976-1977]	Projective solution to the Yagi backfire antenna problem	[1976-1977]		
2010	0146	01	09	104	[1976-1977]	Construction of triangular finite element universal matrices	[1976-1977]		
2010	0146	01	09	105	[1976-1977]	Modal network representation of slot-embedded conductors	[1976-1977]		
2010	0146	01	09	106	[1976-1977]	Automated data specification as a prelude to analysis	[1976-1977]		

<i>Year</i>	<i>Increment</i>	<i>Media Code</i>	<i>Series</i>	<i>Sub-Series</i>	<i>File Title</i>	<i>Description of File</i>	<i>Dates</i>	<i>Cross-Reference</i>	<i>Comments</i>
2010	0146	01	09	107	[1976-1977]	Three-dimensional solutions for high speed magnetic levitation	[1976-1977]		
2010	0146	01	09	108	[1976-1977]	Exactly integrable curvilinear finite elements for potential problems	[1976-1977]		
2010	0146	01	09	109	[1976-1977]	Planar Network Analysis Programs	[1976-1977]		
2010	0146	01	09	110	[1976-1977]	A recursive method in eht E-Polarization of magnetotelluric modelling by high-order finite elements	[1976-1977]		
2010	0146	01	09	111	[1978-1979]	A finite element technique for solving the 2-D open boundary problems	[1978-1979]		
2010	0146	01	09	112	[1978-1979]	The Canadian high speed magnetically levitated vehicle system	[1978-1979]		
2010	0146	01	09	113	[1978-1979]	A finite element technique for solving the 2-D open boundary problems	[1978-1979]		
2010	0146	01	09	114	[1978-1979]	The Mag-Net 78 Finite Element Model Description Language	[1978-1979]		
2010	0146	01	09	115	[1978-1979]	Finite element models of exterior regions containing moving conductors	[1978-1979]		
2010	0146	01	09	116	[1978-1979]	Topgraphic effects in magnetotelluric modelling by high-order finite elements	[1978-1979]		
2010	0146	01	09	117	[1978-1979]	Finite Elements for Magnetostatic Fields with Distributed Current Densities	[1978-1979]		
2010	0146	01	09	118	[1978-1979]	Scalar Finite Element Solution of Magnetic Fields in Axisymmetric Boundaries	[1978-1979]		
2010	0146	01	09	119	[1980-1984]	The fundamental equations of electric and magnetic fields	[1980-1984]		
2010	0146	01	09	120	[1980-1984]	ICEM - Athens - 1980	[1980-1984]		
2010	0146	01	09	121	[1980-1984]	Interactive computer graphics in magnetic field analysis and electric machine design	[1980-1984]		
2010	0146	01	09	122	[1980-1984]	A 3D Finite Element Analysis of Spherically Pinched Plasmas	[1980-1984]		
2010	0146	01	09	123	[1980-1984]	Universal Finite element Matrices for Tetrahedra	[1980-1984]		
2010	0146	01	09	124	[1980-1984]	The use of interactive postprocessing in the design of electromagnetic devices	[1980-1984]		

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File Listing
Box 4

<i>Year</i>	<i>Increment</i>	<i>Media Code</i>	<i>Series</i>	<i>Sub-Series</i>	<i>File Title</i>	<i>Description of File</i>	<i>Dates</i>	<i>Cross-Reference</i>	<i>Comments</i>
2010	0146	01	09	125	[1980-1984]	The fundamental equations of electric and magnetic fields	[1980-1984]		
2010	0146	01	09	126	[1980-1984]	Software Engineering Aspects of Finite Elements	[1980-1984]		
2010	0146	01	09	127	[1980-1984]	Graphic Representations of Three-Component Vector Fields	[1980-1984]		
2010	0146	01	09	128	[1980-1984]	A memory-economic frontwidth reduction algorithm	[1980-1984]		
2010	0146	01	09	129	[1980-1984]	Permutation Rules for Simplex Finite Elements	[1980-1984]		
2010	0146	01	09	130	[1980-1984]	Tetrahedral finite element matrix primitives	[1980-1984]		
2010	0146	01	09	131	[1980-1984]	Three-Dimensional Magnetostatic Field Analysis of Electrical Machinery by the Finite-Element Method	[1980-1984]		
2010	0146	01	09	132	[1980-1984]	A finite element analysis of the plasmas pinched in three dimensions	[1980-1984]		
2010	0146	01	09	133	[1980-1984]	Interface finite element and design	[1980-1984]		
		01	09	134	[1980-1984]	Interactive Modelling of Magnetization Curves	[1980-1984]		
2010	0146	01	09	135	[1980-1984]	A Raster Graphics Based Interactive Design System for the Solution of the two-dimensional non-linear poisson equation	[1980-1984]		
2010	0146	01	09	136	[1980-1984]	Magnetic field computation in histeretic media by the finite element method, using the preisach model	[1980-1984]		
2010	0146	01	09	137	[1980-1984]	A finite element database for electromagnetic field computation	[1980-1984]		
2010	0146	01	09	138	[1980-1984]	Automatic Adaptive Finite Element Mesh Generation	[1980-1984]		
2010	0146	01	09	139	[1980-1984]	Vector potential formulations for three-dimensional magnetostatics	[1980-1984]		
2010	0146	01	09	140	[1980-1984]	An interactive empirical approach to the validation of software package specifications	[1980-1984]		
2010	0146	01	09	141	[1986-1989]	Equation solvers for comupter-adied engineering	[1986-1989]		
2010	0146	01	09	142	[1986-1989]	Approximate calculation of eddy current effects on resonant oscillations in transformer windings	[1986-1989]		
2010	0146	01	09	143	[1986-1989]	Calculation of Transformer Winding Resonances by a Specialized Finite Element Method Employing Substructures	[1986-1989]		
2010	0146	01	09	144	[1986-1989]	Covariant projection elements for three dimensional vector problems	[1986-1989]		
2010	0146	01	09	145	[1986-1989]	A graphics function standard specification validator	[1986-1989]		
2010	0146	01	09	146	[1986-1989]	Spurious Solutions to Vector Diffusion and Wave Field Problems	[1986-1989]		
2010	0146	01	09	147	[1986-1989]	Spectrally correct finite element operators for electromagnetic vector fields	[1986-1989]		

<i>Year</i>	<i>Increment</i>	<i>Media Code</i>	<i>Series</i>	<i>Sub-Series</i>	<i>File Title</i>	<i>Description of File</i>	<i>Dates</i>	<i>Cross-Reference</i>	<i>Comments</i>
2010	0146	01	09	148	[1986-1989]	Three Dimensional Finite, Boundary, and Hybrid Element Solutions of the Maxwell Equations for Lossy Dielectric Media	[1986-1989]		
2010	0146	01	09	149	[1986-1989]	Weighted gaussian quadratures for singular and near-singular integrands	[1986-1989]		
		01	09	150	[1986-1989]	Electromagnetics and finite elements	[1986-1989]		
2010	0146	01	09	151	[1990]	Introducing computer structure by machine simulation	[1990]		
2010	0146	01	09	152	[1991]	Small-computer simulation of logic circuits	[1991]		
2010	0146	01	09	153	[1991]	On effective computational models for anisotropic soft B-H curves	[1991]		
2010	0146	01	09	154	[1991]	Differentiation of finite element approximations to harmonic functions [with 3.5 floppy]	[1991]		
2010	0146	01	09	155	[1991]	Computational modesl for staggered butted joints in laminated ferromagnetics	[1991]		
2010	0146	01	09	156	[1991]	Symbolic computation as a basis for numerical methods	[1991]		
2010	0146	01	09	157	[1991]	Extended Poisson kernels for differentiation of harmonic functions	[1991]		
2010	0146	01	09	158	[1991]	User Interface Design for a Computer Simulator	[1991]		
2010	0146	01	09	159	[1991]	Finite elements for reduced scalar magnetic potential problems	[1991]		
2010	0146	01	09	160	[1991]	Computational error in reduced scalar magnetic potential problems	[1991]		
2010	0146	01	09	161	[1992]	Computational models for laminated magnetic materials	[1992]		
2010	0146	01	09	162	[1992]	Analytic solutions for the finite-difference time-domain and transmission-line-matrix methods [with 3.5 floppy]	[1992]		
2010	0146	01	09	163	[1992]	Computer algebra in finite element software construction [with 3.5 floppy]	[1992]		
2010	0146	01	09	164	[1992]	Boundary-marching method for discontinuity analysis in waveguides of arbitrary cross section [with 3.5 and 5.25 disks]	[1992]		
2010	0146	01	09	165	[1992]	Geometric modeling guidelines for absorbing boundary conditions in finite element analysis [with 3.5 floppy]	[1992]		
2010	0146	01	09	166	[1992]	Finite elements in electrical engineering: The first 50 years	[1992]		
2010	0146	01	09	167	[1992]	Symbolic computation in finite element analysis	[1992]		
2010	0146	01	09	168	[1993]	Torque computation by mean and difference potentials [with 3.5 floppy]	[1993]		

<i>Year</i>	<i>Increment</i>	<i>Media Code</i>	<i>Series</i>	<i>Sub-Series</i>	<i>File Title</i>	<i>Description of File</i>	<i>Dates</i>	<i>Cross-Reference</i>	<i>Comments</i>
2010	0146	01	09	169	[1993]	[Omeragic Comparative Differentiation (on file)] A comparative experimental stduy of differentiation methods on the finite elements [with 3.5 floppy]	[1993]		
2010	0146	01	09	170	[1993]	Symbolic computation for boundary element methods [with 3.5 floppy]	[1993]		
2010	0146	01	09	171	[1993]	[INTERMAG 93 (on file)] Differentiation algorithms for soft magnetic material models [with 3.5 floppy]	[1993]		
2010	0146	01	09	172	[1993]	[Zhu-Zienkiewicz 3-D (on file)] A two-dimensional Zhu-Zienkiewicz method for gradient recovery from finite element solutions [with 5.25 disk]	[1993]		
2010	0146	01	09	173	[1993]	[Omeragic Zhu-Zienkiewicz (on file)] Two-dimensional gradient recovery by local smoothing of finite element solutions [with 3.5 floppy]	[1993]		
2010	0146	01	09	174	[1993]	[Symbolic computation of skin effect (on file)] Symbolic generation of finite elements for skin-effect integral equations [with 3.5 floppy]	[1993]		
2010	0146	01	09	175	[1993]	[Dufresne (on file)] Database Structure for Plasma Modelling Programs [with 3.5 floppy]	[1993]		
2010	0146	01	09	176	[1993]	[Finite Elements 1994-5 (on file)] Finite elements in electromagnetics: A jubilee review [with 3.5 floppy]	[1993]		
2010	0146	01	09	177	[1993]	[Open Files (on file)] [with 3.5 floppy]	[1993]		
2010	0146	01	09	178	[1993]	[St. Petersburg 1994-5? (on file)] Finite Elements for Open-Boundary Problems: Algorithms and Prospects	[1993]		
2010	0146	01	09	179	[1993]	[High-order differentiation of finite element solutions 1994 (on file)] Differentiation of Helmholtz Equation [with 3.5 floppy]	[1993]		
2010	0146	01	09	180		[Omeragic & Silvester (on file)] Extended Poisson kernels for sectorial elements [with 3.5 floppy]			
2010	0146	01	09	181		[Extend Poisson Images 1995 (on file)] Extended Poisson kernels for sectorial elements [with 3.5 floppy]			
2010	0146	01	09	182		[Unpublished 1995 (on file)] Electrostatic image formation			
2010	0146	01	09	183		[Shape sensitivity of metal detectors]			
2010	0146	01	09	184		[Differentiation of imprecise (RSC) 1995 (on file)] Differentiation of imprecise multimensional data: A review (with 3.5 floppy)			
2010	0146	01	09	185		[Intermag 95 Asixymmetric (on file)] Numerical differentiation of harmonic functions in axisymmetric coordinates (with 3.5 floppy)			

<i>Year</i>	<i>Increment</i>	<i>Media Code</i>	<i>Series</i>	<i>Sub-Series</i>	<i>File Title</i>	<i>Description of File</i>	<i>Dates</i>	<i>Cross-Reference</i>	<i>Comments</i>
2010	0146	01	09	186		[Project Sphere-Map] (with 3.5 floppy)			
2010	0146	01	09	187		[Numerical differentiation in magnetic field processing] (with 3.5 floppy)			
2010	0146	01	09	188		[Numerical differentiation in magnetic field processing]			
2010	0146	01	09	189		[Progress in differentiation 1996 (on file)] Progress in differentiation of approimate data (with 3.5 floppy)			
2010	0146	01	09	190		[Finite Elements for Piezoelectric Vibrations with Open Electric Boundaries] author proof			
2010	0146	01	09	191		[No date (on file)] A new formulation based on scalar magnetic potential and surface magnetic charge distribution			
2010	0146	02		1		Guide argent du système Unix			
2010	0146	02		2		Information & Computing - 26			
2010	0146	02		3		Finite elements for electrical engineers			
2010	0146	02		4		System operacyjny Unix			
2010	0146	02		5		Finite elements for electrical engineers			
2010	0146	02		6		Elementos finitos para ingeniería eléctrica			

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File Listing
Disks and Slides

Year	Increment	Media Code	Series	Sub-Series	File Title	Description of File	Dates	Disc Format
2010	0146	04			slides	Magnet Eleven Show slides		
2010	0146	04			slide carasol	CAD Lecture with notes		
2010	0146	04			slides	loose sheet		
2010	0146	04			binder	CAD [slides]		
2010	0146	04			binder	[red binder untitled] slides		
2010	0146	09			755-Mar96-1			Mini Data Cartridge
2010	0146	09			755-Mar96-2			Mini Data Cartridge
2010	0146	09				<i>possibly blank discs</i>		Mini Data Cartridge
2010	0146	09			Courses 1992-95	software courses		Mini Data Cartridge
2010	0146	09			Win3.1-os/2	part 3, software courses	Mar-96	Mini Data Cartridge
2010	0146	09			Win3.1-os/2	part 2, software courses	Mar-96	Mini Data Cartridge
2010	0146	09			Win3.1-os/2	part 1, software courses	Mar-96	Mini Data Cartridge
2010	0146	09			TP-360	software courses	09-Sep-95	Mini Data Cartridge
2010	0146	09			C-755 (1)	thinkpad	30-Jun-95	Mini Data Cartridge
2010	0146	09			C-755 (2)	thinkpad	30-Jun-95	Mini Data Cartridge
2010	0146	09			E-755	thinkpad	30-Jun-95	Mini Data Cartridge
2010	0146	09			D-755	thinkpad	30-Jun-95	Mini Data Cartridge
2010	0146	09			D-755	thinkpad, <i>archival</i>	06-Jun-95	Mini Data Cartridge
2010	0146	09			Dell	Dell 386 archive	10-Oct-94	Mini Data Cartridge
2010	0146	09			Dell	Dell 386 archive	27-Dec-94	Mini Data Cartridge
2010	0146	09			E.386	Dell 386 archive	07-Jun-94	Mini Data Cartridge
2010	0146	09			F-G archive 80386 old	Dell 386 archive	07-Jul-94	Mini Data Cartridge
2010	0146	09			D386 F386	Dell 386 archive	Jul-94	Mini Data Cartridge
2010	0146	09			D 755	thinkpad 755	17-Jul-95	Mini Data Cartridge
2010	0146	09			E-755	thinkpad 755	17-Jul-95	Mini Data Cartridge
2010	0146	09			Think Pad 755 original	thinkpad 755		Mini Data Cartridge
2010	0146	09			C-755 (1)	thinkpad 755	17-Jul-95	Mini Data Cartridge
2010	0146	09			C-755 (2)	thinkpad 755	17-Jul-95	Mini Data Cartridge
2010	0146	09			Commercial Software	commercial software		Mini Data Cartridge
2010	0146	09			Commercial Software	commercial software		Mini Data Cartridge

Year	Increment	Media Code	Series	Sub-Series	File Title	Description of File	Dates	Disc Format
2010	0146	09			Commercial Software	commercial software		Mini Data Cartridge
2010	0146	09			Watcom C++ 10	commercial software		Mini Data Cartridge
2010	0146	09				<i>possibly blank discs</i>		Zip Disk
2010	0146	09			IBM 755 C Drive 1		Oct-96	Zip Disk
2010	0146	09			IBM 755 C Drive 2			Zip Disk
2010	0146	09			IBM 755 C Drive 3			Zip Disk
2010	0146	09			IBM 755 D Drive 2	E drive as well (1)		Zip Disk
2010	0146	09			IBM 755 E Drive 1			Zip Disk
2010	0146	09			Thinkpad 755 C: part 2		17-Jul-95	Zip Disk
2010	0146	09			Zip Tools			Zip Disk
2010	0146	09			Corresp D E-old Zip Courses 1988-95		1995	Zip Disk
2010	0146	09			CEIA Firenze Courses		winter 95/6	Zip Disk
2010	0146	09			Disk 1 C: drive	Which computer There was a second IBM bought with NSERC funds in 1995		Zip Disk
2010	0146	09			Disk 2 C: drive Ddrive.zip	Which computer There was a second IBM bought with NSERC funds in 1995		Zip Disk
2010	0146	09			C Drive	Which computer There was a second IBM bought with NSERC funds in 1995 GR (Corel, gwswin, skedchate) Windows Files (ini.bat.sys)		Zip Disk
2010	0146	09			Disk 1 of 1 Drive D:	Which computer There was a second IBM bought with NSERC funds in 1995		Zip Disk
2010	0146	09			D Drive	Which computer There was a second IBM bought with NSERC funds in 1995 (Comm, mg, qpww, symatec)		Zip Disk

Year	Increment	Media Code	Series	Sub-Series	File Title	Description of File	Dates	Disc Format
2010	0146	09			428 (2)	<i>grey container</i>		3.5 floppy
2010	0146	09			428 (1)	<i>grey container</i>		3.5 floppy
2010	0146	09			C 428-1 Distribution disk class list	<i>grey container</i>		3.5 floppy
2010	0146	09			428 (3)	<i>grey container</i>		3.5 floppy
2010	0146	09			Undergraduates	<i>grey container</i>	1988	3.5 floppy
2010	0146	09			Finite Elements for Electrical Engineers	<i>grey container</i> , laboratory disk		3.5 floppy
2010	0146	09			Finite Elements for Electrical Engineers	<i>grey container</i> , laboratory disk		3.5 floppy
2010	0146	09			Silvester & Ferrari	<i>grey container</i> , laboratory disk	Sep-89	3.5 floppy
2010	0146	09			Silvester & Ferrari	<i>grey container</i> , laboratory disk (development)		3.5 floppy
2010	0146	09			Florence Lectures Disk 1/2	<i>grey container</i>	1994	3.5 floppy
2010	0146	09			Short Courses (Organization)	<i>grey container</i>		3.5 floppy
2010	0146	09			Short Courses	<i>grey container</i>		3.5 floppy
2010	0146	09			Undergraduates	<i>grey container</i>		3.5 floppy
2010	0146	09			Lab Disks (Compuserve, Lab disk, book)	<i>grey container</i>		3.5 floppy
2010	0146	09			Grant Applications	<i>grey container</i>		3.5 floppy
2010	0146	09			Short Courses Programs & Examples	<i>grey container</i>		3.5 floppy
2010	0146	09			Course 304-352 (1-7)	<i>grey container</i>	1994	3.5 floppy
2010	0146	09			Course 304-352 (8-15)	<i>grey container</i>	1994	3.5 floppy

<i>Year</i>	<i>Increment</i>	<i>Media Code</i>	<i>Series</i>	<i>Sub-Series</i>	<i>File Title</i>	<i>Description of File</i>	<i>Dates</i>	<i>Disc Format</i>
2010	0146	09			Course 304-352 (16-20)	grey container	1994	3.5 floppy
2010	0146	09			304-352 Exam	grey container	Dec-93	3.5 floppy
2010	0146	09			Course 304-352	grey container	1993-94	3.5 floppy
2010	0146	09			304-428 pictures	grey container		3.5 floppy
2010	0146	09			428	grey container		3.5 floppy
2010	0146	09			metal detector CEFC	grey container	1996	3.5 floppy
2010	0146	09			Sphere-Map	grey container		3.5 floppy
2010	0146	09			Florence Lectures Disk 2/2	grey container	1994	3.5 floppy
2010	0146				Iomega Zip Drive			

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File Listing
Mixed Box

<i>Year</i>	<i>Increment</i>	<i>Media Code</i>	<i>Series</i>	<i>Sub-Series</i>	<i>File Title</i>	<i>Description of File</i>	<i>Dates</i>	<i>Cross Reference</i>
2010	0146	09	01	1	PPS citations sea	3.5 floppy		
2010	0146	02		7		Unix: Una Guida Introduttiva		
2010	0146	02		8		Finite elements in electrical and magnetic field problems		
2010	0146	02		9		[unknown]		
2010	0146	02		10		Campos Eletromagnéticos modernos		
2010	0146	12	01	1		guest book from the APS/URSI special session in memory of, with photographs	1997	
2010	0146	12	01	2	[Personal Diary]	diary of trip to Canada and Yukon trip	1948-1951	
2010	0146	03		1		diploma		2010-0146.01.09.22
2010	0146	03		2		diploma		2010-0146.01.09.33

Comments

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File Listing
Photos & Microfiche

Year	Increment	Media Code	Series	Sub-Series	File Title	Description of File	Dates	Cross Reference	Comments
2010	0146	04	1		[Personal Diary]		1974-1980	2010-0146.01.01.5	6 black and white 6"X10" photographs of winter scenes, tucked inside back of personal log book
2010	0146	04	2-3		Photos	original black &white; colour copies; colour; 35mm negatives	c. 1958-1996	2010-0146.01.01.6	11 black and white portraits of PPSilvester, various sizes; 4 colour portraits of PPSilvester, 4"X6"; 6 group photographs, various sizes; 4 black and white wallet photographs of unknown woman; 1 35mm negative strip (negative strip corresponds to printed image in 2010-0146.04.3)
2010	0146	04	4			guest book [possibly from funeral service], with photos	c.1996	2010-0146.01.01.25	3 colour photographs, possibly from the funeral 4"X6"
			5		Yoshimoto	copy of articles; correspondence; photos	1983-1994	2010-0146.01.02.9	2 colour photographs, 4 1/2"X3 1/4"
			6		Computational Mechanics Publications	SPICE 5.25 disks; copy of article Toward a Formal Standard of the SPICE Circuit Description Language; publishing agreement to be editor of conference proceedings; photographs; 3.5 floppy for Data Structures in Engineering Software	1990-1993	2010-0146.01.05.1	6 black and white photographs, 5"X7"
			7		Finite Element Course	timetable; colour 35mm slides	1987	2010-0146.01.08.4	50 35mm colour slides
			8		1966	A Practical Skin-effect Computing Network		2010-0146.01.09.4	2 black and white photographs, 4"X6"
			9		1966	Modal Network Theory of Skin Effect in Flat Conductors		2010-0146.01.09.5	3 black and white portraits, wallet size
		10	1		[1968-1969]	Contour Plotting Routine for Line Printers	[1968-1969]	2010-0146.01.09.17	1 microfiche
		10	2		[1968-1969]	High Order Finite Element Waveguide Analysis	[1968-1969]	2010-0146.01.09.20	1 microfiche
		10	3		[1968-1969]	Capacitance Determination for Infinite Interdigital Structures	[1968-1969]	2010-0146.01.09.24	1 microfiche