BIBLIOGRAPHY OF THE COMPUTER CODES LITERATURE
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RADIATION SHIELDING INFORMATION CENTER

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Betty F. Maskewitz      Betty L. McGill      Jane Gurney

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*Oak Ridge Computer Sciences Center

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Oak Ridge, Tennessee
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for the
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INTRODUCTION

One of the most important functions of an information center is that of keeping abreast of literature in the area of interest. The staff of the Radiation Shielding Information Center makes a continuous effort to survey the literature to select that which may be of interest to the shielding community. Literature describing computer codes is kept separate from the general literature since indexing schemes would be quite different and the useful life of a code is comparatively short. Thus, the bibliographies of the general literature are published separately.*

This bibliography covers literature which describes not only shielding computer codes, but nuclear codes in a fringe area of shielding, and some miscellaneous information which might be of general interest. Thus this literature may be useful even though the codes which are described may not be considered suitable, or may not be available, for the codes collection.

The reports are grouped according to the originating installations, with the report number listed in alphabetical and/or numerical order. There has been no attempt to classify or categorize the reports, other than to indicate the computer for which a code was written and the programming language in which it was written, although this may be done in the future.

RSIC collects and maintains a file of documents for its own use and does not perform the service of a documentation center. In general, the literature selected for this bibliography may be obtained elsewhere. An exception made to this policy is that documentation is included in the code packages distributed by the Center.

The RSIC staff requests that the users of this bibliography call to the attention of the staff any literature which has not been covered in this issue and that RSIC be included in the external distribution of literature describing computer codes originating at their installations.

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BY L. CRISCUOLO
PART 2. CODING OF THE PROGRAM
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FORTRAN FOR IBM-704

EUR-2294.E 1965 FIRST I
IBM 7090 FORTRAN II CODE FOR THE CALCULATION OF A NEUTRON
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BY H. TAKAHASHI AND H. DEWALDE
FORTRAN FOR IBM 7090
FOA - FORSVARETS FORSKNINGSANSTALT
RESEARCH INSTITUTE OF NATIONAL DEFENSE
STOCKHOLM, SWEDEN

FOA-4 A-44C3-411 NOVEMBER 1964 SALOMON
A USERS MANUAL FOR SALOMCN, AN IBM 7090 CODE FOR GAMMA
TRANSPORT CALCULATIONS
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FORTRAN FOR IBM 7090

FOA-4 A-4411-411 JANUARY 1965 PROTOS
A MONTE CARLO PROCEDURE FOR CALCULATING THE MIGRATION OF
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BY C. JOHANSSON AND M. LEIMDORFER
FORTRAN II FOR IBM-7090

FOA-4 A-4436-411 JULY 1965 PROTOS
PROGRAM DESCRIPTION AND USERS MANUAL FOR PROTOS, A COMPUTER
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FORTRAN II FOR IBM-7090

FZK - SEE NARF AND CONVAIR

GA - GENERAL ATOMIC, DIVISION OF GENERAL DYNAMICS
SAN DIEGO, CALIFORNIA

GA-3152 AUGUST 1962 GAZE-2
GAZE-2, A ONE-DIMENSIONAL, MULTIGROUP, NEUTRON DIFFUSION
THEORY CODE FOR THE IBM-7090
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GA-4132 JULY 1963 GATHER-II
GATHER-II - AN IBM-7090 FORTRAN II PROGRAM FOR THE COMPUTATION
OF THERMAL-NEUTRON SPECTRA AND ASSOCIATED MULTIGROUP
CROSS SECTIONS
BY G. D. JOANOU, C. V. SMITH, AND H. A. VIEWEG
GA-4246  JUNE 1963  GAMBLE
GAMBLE - A PROGRAM FOR THE SOLUTION OF THE MULTIGROUP
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ARBITRARY GROUP SCATTERING, FOR THE IBM-7090 FORTRAN II
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BY J. P. DORSEY

GA-4265  SEPTEMBER 1963  GAM II
GAM-II, A B3 CODE FOR THE CALCULATION OF FAST-NEUTRON
SPECTRA AND ASSOCIATED MULTIGROUP CONSTANTS
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IBM 7C90

GA-4436  DECEMBER 1963  GGC II
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SPECTRUM CODES IN PREPARING MULTIGROUP CROSS-SECTION
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IBM 7C90

GA-4972  MARCH 1964  GAPLSN
GAPLSN - A MODIFIED DSN PROGRAM FOR THE SOLUTION OF THE
CONE-DIMENSIONAL ANISOTROPIC TRANSPORT EQUATION
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IBM 7C90

GA-5418 (MF)  JULY 1964  CAP
A COLLIMATOR ANALYSIS PROGRAM
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FORTRAN

GA-6C96  DECEMBER 1964  HEXSCAT
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QUARTERLY PROGRESS REPORT FOR THE PERIOD ENDING DECEMBER 31,
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A NEUTRON CROSS SECTION DATA RETRIEVAL PROGRAM
BY C. V. SMITH AND M. K. DRAKE
FORTRAN IV AND MAP FOR IBM 7044

GAMD-2610  NOVEMBER 1961  DSN
A NEW VERSION OF DSN
BY J. H. ALEXANDER
IBM 7C90

GAMD-2797  MARCH 1962  DDB
DDB - A TWO DIMENSIONAL REACTOR DIFFUSION CODE WITH CRITI-
CALITY SEARCH AND BURNOUT OPTIONS, VOLUME I
BY J. H. ALEXANDER, C. CYL-CHAMPLIN, J. E. GRATTEAU,
P. C. KAESTNER, E. J. LEHAN, W. A. GROWDON, AND
M. H. MERRILL
GAMD-5239 (MF)  NOVEMBER 1964  PIZZA
AN IBM COMPUTER CODE FOR THE PLANE STRESS ANALYSIS OF
TWO DIMENSIONAL BODIES, INPUT INSTRUCTIONS
BY D. C. CORNELL
FORTRAN FOR IBM 7044

GAMD-6644 (MF)  AUGUST 1965  BLOOST-5
BLOOST-5 - A COMBINED REACTOR KINETICS-HEAT TRANSFER CODE
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FORTRAN IV

GAMD -  SEE GA

GEAP -  GENERAL ELECTRIC COMPANY
ATOMIC POWER EQUIPMENT DEPARTMENT
SAN JOSE, CALIFORNIA

GEAP-4772 (MF)  JANUARY 1965  DARE
EVESR-NUCLEAR SUPERHEAT FUEL DEVELOPMENT PROJECT. DARE
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GEMP -  SEE XDC

GNE -  AIR FORCE INSTITUTE OF TECHNOLOGY
WRIGHT-PATTERSON AFB, OHIO

GNE-PHY-64-7 (MF)  AUGUST 1964  THESIS
THEORETICAL CALCULATION OF NEUTRON AGE
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IBM 1620
HW - HANFORD ATOMIC PRODUCTS OPERATION
RICHLAND, WASHINGTON
(SEE ALSO BNWL)

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MAC - A BULK SHIELDING CODE
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IBM 7C90

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HW-8C246 (MF)  FEBRUARY 1964  MIDAS
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IBM 7C90

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IBM 7C90

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BY H. H. VAN TUYL
FORTRAN II, IBM 7090

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ISOGEN - A COMPUTER CODE FOR RADIOISOTOPE GENERATION
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BY H. H. VAN TUYL

HW-SA-3769  OCTOBER 1964  ISOGEN
RADIONUCLIDE GENERAL CALCULATIONS
BY H. H. VAN TUYL
FORTRAN FOR IBM 7090
ID0 - PHILLIPS PETROLEUM
USAEC, IDAHO OPERATIONS OFFICE
IDAHO FALLS, IDAHO

ID0-16856 MAY 1963 MIST
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A MULTIGROUP INTERNUCLEAR SLAB TRANSPORT CODE
BY G. E. PUTNAM AND D. M. SHAPIRO
FORTRAN FOR IBM-7090

ID0-16968 APRIL 1964 TOPIC
TOPIC - A FORTRAN PROGRAM FOR CALCULATING TRANSPORT OF
PARTICLES IN CYLINDERS
BY G. E. PUTNAM

ID0-16984 JULY 1964 NS X-SECT
A MACHINE PROGRAM FOR CALCULATING SLOW NEUTRON SCATTERING
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BY H. L. MCMURRY AND L. J. GANNON

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A MONTE CARLO PROGRAM FOR THE CALCULATION OF FIRST-FLIGHT
ESCAPE PROBABILITIES FOR FINITE CYLINDERS
BY W. K. FOELL, C. W. BERNER, AND S. TONG
MAP FOR IBM-7040

ID0-24467 APPENDICES DECEMBER 1963 DER-029
DER-074
DER-006A
DER-013
SECONDARY GAMMA, BASIC GEOMETRY, FISSION PRODUCT BUILDUP
AND DECAY AND POINT SOURCE SUMMATION CODES
BY J. O. HOWARD AND G. M. JACKS

ISS - ISTITUTO SUPERIORE DI SANITA, LABORATORI DI FISICA
ROMA, ITALIA

ISS-64/21 JUNE 1964 ARIEL
(ORNL-TR-624)
THE ARIEL PROGRAM FOR THE STUDY OF PHOTOPRODUCTION
REACTIONS IN HYDROGEN
BY G. FARCHI AND P. LANCIANI
FORTRAN IV FOR IBM-7040
JAERI - JAPAN ATOMIC ENERGY RESEARCH INSTITUTE
TOKAI RESEARCH ESTABLISHMENT

JAERI-1082 FEBRUARY 1965 KPARAM
MULTIGROUP CALCULATIONS OF KINETICS PARAMETERS IN
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BY KINICHI MORIGUCHI AND TOMOO SUZUKI
FORTRAN II, IBM 7090 AND FORTRAN IV, IBM 7044

KAPL - KNOLLS ATOMIC POWER LABORATORY
SCHENECTADY, NEW YORK
(OPERATED FOR USAEC BY GENERAL ELECTRIC CO.)

KAPL-1549 AUGUST 1956 TRIXY
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CALCULATIONS IN THREE-SPACE DIMENSIONS
BY P. GREEBLER

KAPL-1724 APRIL 1957 CURE
CURE - A GENERALIZED TWO-SPACE-DIMENSION MULTIGROUP
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BY E. L. WACHSPRESS

KAPL-2239 JUNE 1959 TRAM
TRAM, A MONTE CARLO THERMAL NEUTRON CODE FOR THE IBM 704
BY M. A. MARTINO AND W. W. STONE

KAPL-2225 SEPTEMBER 1962 KERNEL
PAM
PROGRAMS FOR USE IN THE CALCULATION OF THE THERMAL
SCATTERING MATRIX FOR CHEMICALLY BOUND SYSTEMS
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FORTRAN AND ALTAC FOR PHILCO 2000

KAPL-3C13 JUNE 1964 DRAM
A MONTE CARLO PROGRAM FOR THE CALCULATION OF CAPTURE PROB-
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BY G. J. HABETTER, R. A. PFEIFFER, AND J. E. TUECKE
ALTAC AND TAC FOR THE PHILCO 2000
FIGS, A PROGRAM TO COMPUTE FEW-GROUP CONSTANTS WITHIN THE KARE DIFFUSION THEORY SYSTEM
BY D. E. GOODMAN

SOSH I - A COMPUTER PROGRAM FOR SHIELDING CALCULATIONS
BY M. S. PENDERGAST, JR.

SOSH II - A COMPUTER PROGRAM FOR SHIELDING CALCULATIONS
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BY M. S. PENDERGAST, JR.

A MULTIDIMENSIONAL OPTIMIZATION SCHEME
BY C. R. LUBITZ AND G. A. SHANHOLT

HOTSTICK
KARE AXIAL POWER DISTRIBUTION PROGRAM FOR THE PHILCO 2000
BY D. E. GOODMAN
PHILCO 2000

A ONE DIMENSIONAL MONOENERGETIC TRANSPORT PROGRAM
(REVISION II)
BY E. I. BROOKS, JR., C. W. DAWSON AND T. E. DUDLEY

A PROGRAM FOR MULTI-LEVEL, MULTI-CHANNEL CALCULATION OF NEUTRON CROSS SECTIONS WITH DOPPLER AND RESOLUTION BROADENING
BY E. J. BROOKS, JR. AND E. L. SLAGGIE

A PILE OSCILLATOR DATA REDUCTION PROGRAM FOR THE PHILCO 2000 DIGITAL COMPUTER
BY J. N. BRAZOS, B. A. GOTTSCHALK, AND A. L. LIEDEL
FORTRAN FOR IBM 704 AND PHILCO S-2000

SWAKRAUM - A SPATIALLY DEPENDENT THERMAL SPECTRUM CODE FOR THE PHILCO-2000
BY F. D. FEDERIGHI

GAM I - A GAMMA CROSS SECTION CODE FOR THE PHILCO TRANSAC S-2000
BY G. E. SABIAN
KN - KAMAN NUCLEAR
COLORADO SPRINGS, COLORADO

KN-63-76(R) JUNE 1963
TGRMM
A FORTRAN PROGRAM FOR THE CALCULATION OF THE TRANSPORT
OF GAMMA RAYS BY THE METHOD OF MOMENTS
BY RICHARD E. VOGEL
IBM 1620

KOA - SEE UCC

KR - INSTITUT FOR ATOMENERGI
KJELLER RESEARCH ESTABLISHMENT
KJELLER, NORWAY

KR-71 JUNE 1964
K-7 TRANSPO
ONE GROUP NEUTRON TRANSPORT IN A HETEROGENEOUS CYLINDRI-
CALLY SYMMETRIC REACTOR CELL
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LA - SEE LAMS
LA-2161  MARCH 1957  FIRE
A ONE DIMENSIONAL INTERMEDIATE REACTOR COMPUTING
PROGRAM
BY C. B. MILLS AND F. BRINKLEY

LA-3264-MS  MARCH 1965  RATH
RATH THERMAL ANALYSIS PROGRAMS
BY R. F. THOMAS, JR. AND M. D. J. ROBERTS
FORTRAN FOR IBM-7030, -7094

LA-3267  APRIL 1965  GAMLEG
A FORTRAN CODE TO PRODUCE MULTIGROUP CROSS SECTIONS FOR
PHOTON TRANSPORT CALCULATIONS
BY K. D. LATHROP
FORTRAN FOR IBM-7030

LA-3373  JULY 1965  DTF-IV
DTF-IV, A FORTRAN-IV PROGRAM FOR SOLVING THE MULTIGROUP
TRANSPORT EQUATION WITH ANISOTROPIC SCATTERING
BY K. D. LATHROP
FORTRAN IV FOR IBM 7030 AND 7090

LAMS-2339  AUGUST 1959  FLOCO II
FLOCO II MANUAL
BY B. CARLSON, C. S. KAZEK, JR., AND C. LEE

LAMS-2346  OCTOBER 1959  DSN, TDC
THE DSN AND TDC NEUTRON TRANSPORT CODES
BY B. CARLSON, C. LEE, AND J. WORLTON

LAMS-2346-APPENDIX I  OCTOBER 1959  DSN
THE DSN CODE
BY B. CARLSON, C. LEE, AND J. WORLTON

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LAMS-2856  MARCH 1963  MCS
A GENERAL MONTE CARLO NEUTRONICS CODE
BY ROBERT R. JOHNSTON
IBM 7090
FLANTASIA II AND TRIPOD II - SHIELDING CODES FOR THE IBM 7090
BY HERBERT A. STEINBERG, J. HEITNER, AND R. ARONSON

ALTRAN
AN IBM-7094 TRANSLATOR FOR PHILCO-2000 SERIES CODES
BY T. M. OLSN
FORTRAN II AND FAP FOR IBM-7094

APWRC-CELER, A FORTRAN-II PROGRAM FOR MULTIPLE LETHARGY LEVEL PI OR DSN CELL CORRECTIONS IN CYLINDRICAL, SPHERICAL AND ONE- OR TWO-DIMENSIONAL SLAB GEOMETRY
BY G. A. CANNON AND T. M. OLSN

APWRC-SYNFA-I, A PI AND DSN THEORY FORTRAN-II CODE FOR STATIC AND DYNAMIC SYNTHESIS OF TWO-DIMENSIONAL FLUX AND REACTIVITY
BY T. M. OLSN

APWRC-SYBURN, A FORTRAN-II PROGRAM FOR SYNTHESIZED TWO-DIMENSIONAL PI OR DSN BURNUP CALCULATIONS
BY E. A. COLBETH AND T. M. OLSN

APWRC-GAMICO, A MODIFICATION OF GAM-I FOR APPLICATION TO THE ARMY PRESSURIZED WATER REACTOR CODE
BY G. A. CANNON, R. S. HUBNER, AND T. M. OLSN

APWRC X-SECT
A PROGRAM AND CROSS-SECTION LIBRARY TAPE SYSTEM FOR THE ARMY PRESSURIZED WATER REACTOR CODE
BY T. M. OLSN
MND-C-2501 MAY 1961 CSDP
APR--CSDP, A GENERALIZED FORTRAN II PROGRAM FOR
AUTOMATED CROSS SECTION DATA REDUCTION AND ANALYSIS
BY R. S. HUBNER

MND-MC-2856 JULY 1962 GMCM-9
GENERALIZED MONTE CARLO PROGRAM FOR NEUTRONS
BY M. KNIEDLER AND T. JORDAN.

MND-P-2726 MAY 1962 M-I
SNAP PROGRAMS - M-I MONTE CARLO RADIOISOTOPE SHIELDING
CODE
BY M. J. KNIEDLER

MPC - COMBUSTION ENGINEERING, INC., NUCLEAR DIVISION
WINDSOR, CONNECTICUT

MPC-20 SEPTEMBER 1959 CEPR
CEPR - AN IBM-704 CODE TO SOLVE THE P-3 APPROXIMATION
TO THE ONE-VELOCITY TRANSPORT EQUATION IN CYLINDRICAL
GEOMETRY
BY P. B. DAITCH, B. J. MCGOVERN, AND M. SCHILDER

MR - SEE CONVAIR, NARF, AND FZK

NAA - ATOMICS INTERNATIONAL
DIVISION OF NORTH AMERICAN AVIATION, INC.
CANOGA PARK, CALIFORNIA
(SEE ALSO AI)

NAA-SR-3719 JUNE 1959 GRACE I
GRACE I - AN IBM 704-709 PROGRAM DESIGNED FOR COMPUTING
GAMMA-RAY ATTENUATION AND HEATING IN REACTOR SHIELDS
BY D. S. DUNCAN AND A. B. SPEIR
NAA-SR-7357  JUNE 1962  TYCHE
A MONTE CARLO SLOWING DOWN CODE
BY R. A. BLAINE
FORTRAN FOR IBM-7090

NAA-SR-8427  APRIL 1963  ANNEX I
ANALYTIC TECHNIQUES FOR THE CALCULATION OF THE ORNL
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BY R. S. HUBNER
FORTRAN

NAA-SR-8684  APRIL 1964  TYCHE
THE AGE OF FISSION NEUTRONS TO INDIUM RESONANCE ENERGY
IN GRAPHITE, PART II, THEORY
BY HARRY ALTER
FORTRAN FOR IBM 7090

NAA-SR-8884  JUNE 1965  CURIE
A DIGITAL COMPUTER PROGRAM FOR EXTERNAL AND INTERNAL
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BY G. P. KENFIELD, W. R. LAHS, W. B. SAYER,
R. M. MACADAMS, AND N. A. HARRIS
FORTRAN FOR IBM-7094

NAA-SR-919C  APRIL 1964  SNAPKIN VI
THE SNAPKIN VI COMPUTER PROGRAM FOR SNAP REACTOR KINETICS
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BY W. A. RHOADES

NAA-SR-9233  APRIL 1964  QUICKIE
QUICKIE - A COMPUTER PROGRAM FOR SPATIALLY INDEPENDENT
MULTIGROUP SLOWING-DOWN AND THERMALIZATION CALCULATIONS
BY M. BOLING AND W. RHOADES

NAA-SR-9982  OCTOBER 1964  AISITE II
A DIGITAL COMPUTER PROGRAM FOR INVESTIGATION OF REACTOR
SITING, INCLUDING EXTERNAL RADIATION DOSE CALCULATIONS
BY R. A. BLAINE AND E. L. BRAMBLETT
FORTRAN II FOR IBM 7094

NAA-SR-10951  MARCH 1966  DTF-II
A ONE-DIMENSIONAL, MULTIGROUP NEUTRON TRANSPORT PROGRAM
BY W. W. ENGLE, M. A. BOLING, AND B. W. COLSTON
FORTRAN II FOR IBM-7090

NAA-SR-11231  DECEMBER 1965  CHAD
CODE TO HANDLE ANGULAR DATA
BY R. F. BERLAND
FORTRAN IV FOR IBM 7090 AND 7094
NAA-SR-MEMO-4649  NOVEMBER 1959  GRACE II
AN IBM 709 PROGRAM FOR COMPUTING GAMMA-RAY ATTENUATION
AND HEATING IN CYLINDRICAL AND SPHERICAL GEOMETRIES
BY D. S. DUNCAN AND A. B. SPEIR
FORTRAN FOR IBM 709 AND 7090

NAA-SR-MEMO-4822  MAY 1959  CLOUD
AN IBM 709 PROGRAM FOR COMPUTING GAMMA-RAY DOSE RATE FROM
A RADIOACTIVE CLOUD
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FORTRAN II FOR IBM-709

NAA-SR-MEMO-7776  OCTOBER 1962  SIG-CUM
SIG-CUM - A CODE TO TREAT ANISOTROPIC ELASTIC SCATTERING
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BY F. D. RUDNICK AND H. J. LORENZI

NAA-SR-MEMO-8969  OCTOBER 1963  RATTRAP
THE RATRAPP CODE - A MODIFICATION OF THE FARSE METHOD
FOR SNAP SHIELD GEOMETRY
BY W. B. GREEN
FORTRAN

NAA-SR-MEMO-9069  OCTOBER 1963  AICRT 3
A GENERAL CODE FOR DISPLAY OF DIGITAL DATA
BY M. HOFFMAN AND W. A. RHOADES
FORTRAN II FOR IBM 7090

NAA-SR-MEMO-9202  NOVEMBER 1963  S4CGCC
S4 CYLINDRICAL GEOMETRY CELL CODE
BY J. S. TEMPLE AND R. A. BLAINE
FORTRAN, IBM 7090

NAA-SR-MEMO-9423  JANUARY 1964  CAESAR
CAESAR, A MULTIGROUP, ONE DIMENSIONAL DIFFUSION EQUATION
CODE WITH CROSS SECTION AVERAGING USING ENERGY SPECTRUM
WITH ARES FOR THE RESONANCE
BY DOROTHY C. BALLER

NAA-SR-MEMO-9721  APRIL 1964  ISRCH
A BINARY SEARCH FORTRAN FUNCTION SUBPROGRAM
BY R. A. BLAINE
FORTRAN FOR IBM 7090
(USED IN TYCHE III)

NAA-SR-MEMO-9802  MAY 1964  TYCHE III
IMPROVEMENTS TO THE TYCHE MOMENTS CODE AND OPERATING
INSTRUCTIONS FOR TYCHE III
BY R. A. BLAINE
FORTRAN FOR IBM 7090
NAA-SR-MEMO-10008 (MF) JUNE 1964 MALINDA
MANIPULATION AND LISTING OF NUCLEAR DATA
BY D. W. ROEDER
FORTRAN II FOR IBM 7090 OR 7094

NAA-SR-MEMO-10421 (MF) SEPTEMBER 1964 AVR
A METHOD OF CALCULATING ANNULAR VOID REACTIVITY EFFECTS
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BY R. H. NORMAN, D. G. OLIVER, AND W. R. CASTLE

NAA-SR-MEMO-10544 NOVEMBER 1964 MAG
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BY R. S. HUBNER
FORTRAN II FOR IBM 7090

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MONTE CARLO EVALUATION OF COLLIMATOR EFFICIENCY. PART 1.
DESCRIPTION OF THE CLUB COMPUTER CODE
BY W. B. GREEN AND R. S. HUBNER
FORTRAN AND FAP FOR IBM-7094

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MONTE CARLO EVALUATION OF COLLIMATOR EFFICIENCY PART 2.
LISTING OF THE CLUB CODE
BY W. B. GREEN AND R. S. HUBNER
FORTRAN AND FAP FOR IBM-7094

NAA-SR-MEMO-10881 (MF) JANUARY 1965 ANNEX III
ANALYTIC TECHNIQUES FOR THE CALCULATION OF THE ORNL TOWER
SHIELD EXPERIMENTS, PART III, ANNEX 3
BY R. S. HUBNER
FORTRAN II, IBM 7090

NAA-SR-MEMO-10922 JANUARY 1965 SHOE
A SHIELD WEIGHT OPTIMIZATION CODE
BY R. L. BERNICK
FORTRAN FOR IBM-7094

NAA-SR-MEMO-11516 JULY 1965 OPEX
THE OPEX SHIELD OPTIMIZATION CODE
BY R. L. BERNICK
FORTRAN FOR IBM 7090

NAA-SR-TDR-5772 OCTOBER 1960 FARSE
FARSE - A FIRST ORDER APPROXIMATION OF REACTOR SHIELDS
FOR SNAP SYSTEMS, PART I, NON-SCATTERED DOSE
BY K. ROONEY AND M. BOLING.
FORTRAN
NARF-62-131 SEPTEMBER 1962 LO5
A MONTE CARLO MULTIBEND DUCT PROCEDURE
BY D. G. COLLINS
FAP

FZK-134-3 MARCH 1962 C-18
RADIATION RESISTANT COMBAT VEHICLE INVESTIGATION - FINAL
REPORT, VOLUME III - MONTE CARLO MULTILAYER SLAB GEOMETRY
SHIELDING CODE C-18
BY M. B. WELLS
FAP

FZK-156 OCTOBER 1962 COHORT-I
A MONTE CARLO PROCEDURE FOR RADIATION TRANSPORT AND
HEATING STUDIES
BY M. B. WELLS AND C. F. MALONE
FORTRAN, IBM-7090

FZK-176-1 DECEMBER 1963 COHORT
MONTE CARLO CALCULATIONS OF ENERGY DEPOSITIONS AND RADI-
ATION TRANSPORT, VOL. I - VALIDATION OF COHORT CODES
BY D. G. COLLINS AND T. W. DEVRIES
FORTRAN/FAP

FZK-176-2 DECEMBER 1963 COHORT
MONTE CARLO CALCULATIONS OF ENERGY DEPOSITIONS AND
RADIATION TRANSPORT, VOL. 2 - UTILIZATION OF COHORT
CODES
BY D. G. COLLINS AND T. W. DEVRIES
FORTRAN AND FAP

FZK-20C-5A JUNE 1965 SPARC (P09)
RADIOLOGICAL ARMOR PROGRAM METHODS AND DATA COMPILATION,
VOLUME 5A. COMPUTER PROCEDURES. SLAB PENETRATION AND
REFLECTION CALCULATION
BY J. R. STOKES AND J. L. HUNTER
FAP, IBM 7090

FZK-20C-5A SUPP JUNE 1965 SPARC (P09)
RADIOLOGICAL ARMOR PROGRAM METHODS AND DATA COMPILATION,
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REFLECTION CALCULATION - PROGRAMMERS MANUAL SUPPLEMENT
BY J. L. HUNTER
FOR IBM 7090

FZK-20C-58 JUNE 1965 COMBINE (E20)
RADIOLOGICAL ARMOR PROGRAM METHODS AND DATA COMPILATION,
VOLUME 5B, COMPUTER PROCEDURES. COMBINE TRANSMISSION
CALCULATION (E20)
BY R. F. FALKENBURY, J. L. HUNTER, AND J. R. STOKES
FORTRAN IV FOR IBM 7090
FZK-2CC-5B SUPP JUNE 1965 COMBINE (E20)
RADIOLOGICAL ARMOR PROGRAM METHODS AND DATA COMPILATION,
VOLUME 5B COMPUTER PROCEDURES. COMBINE TRANSMISSION
CALCULATION (E20) - PROGRAMMERS MANUAL SUPPLEMENT
BY J. L. HUNTER
FORTRAN IV FOR IBM 7090

FZK-2CC-5C JUNE 1965 COMBINE (F29)
RADIOLOGICAL ARMOR PROGRAM METHODS AND DATA COMPILATION,
VOLUME 5C. COMPUTER PROCEDURES. COMBINE REFLECTION
CALCULATION
BY R. F. FALKENBURY AND J. L. HUNTER
FORTRAN II FOR IBM 7090

FZK-2CC-5C SUPP JUNE 1965 COMBINE (F29)
RADIOLOGICAL ARMOR PROGRAM METHODS AND DATA COMPILATION,
VOLUME 5C. COMPUTER PROCEDURES. COMBINE REFLECTION
CALCULATION -- PROGRAMMERS MANUAL SUPPLEMENT
BY J. L. HUNTER
FORTRAN II FOR IBM 7090

FZK-234 JUNE 1965 SPARC (E59)
COMPUTER PROCEDURE. SLAB PENETRATION AND REFLECTION
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RISLEY, WARRINGTON, LANCASTHIRE

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IBM 7090 AND CDC 1604

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UNITED STATES NAVAL CIVIL ENGINEERING LABORATORY
PORT HUENEME, CALIFORNIA

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WRIGHT-PATTERSON AIR FORCE BASE, OHIO

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PITTSBURGH 36, PENNSYLVANIA

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WAPD - BETTIS ATOMIC POWER LABORATORY
PITTSBURGH, PENNSYLVANIA
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SLAB SHIELDS
BY K. SHURE
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WAPD-CONF-39-61 MAY 1963 STATURE
COMPUTER ANALYSIS OF THERMAL STRESSES IN ANNULAR CONCRETE
SHIELD
BY DAVID R. THOMAS
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WAPD-T-1734 (MF) JULY 1964 CORSAMP
THE USE OF CORRELATED SAMPLING IN MONTE CARLO CALCULATION
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BY N. J. CURLES, JR. AND L. A. ONDIS
WAPD-TM-28-ADD. 2  JULY 1959  WANDA
ADDENDUM 2 -- WANDA -- A ONE-DIMENSIONAL FEW-GROUP DIFFUSION EQUATION CODE FOR THE IBM-704
BY O. J. MARLOWE

WAPD-TM-70  AUGUST 1957  PDQ
PDQ--AN IBM-704 CODE TO SOLVE THE TWO-DIMENSIONAL FEW-GROUP NEUTRON-DIFFUSION EQUATIONS
BY G. G. BILODEAU, W. R. CADWELL, J. P. DORSEY, J. G. FAIREY, AND R. S. VARGA

WAPD-TM-125  NOVEMBER 1959  TUT-T5
TUT-T5 -- A TWO DIMENSIONAL MONTE CARLO CALCULATION OF CAPTURE PROBABILITIES FOR THE IBM-704
BY J. SPANIER, H. KUEHN, AND W. GUILINGER

WAPD-TM-134  MARCH 1959  FLIP
FLIP -- AN IBM-704 CODE TO SOLVE THE PL AND DOUBLE-PL EQUATIONS IN SLAB GEOMETRY
BY B. L. ANDERSON, J. A. DAVIS, E. M. GELBARD, AND P. H. JARVIS

WAPD-TM-135  JULY 1959  PIMG
PIMG -- A ONE-DIMENSIONAL MULTIGROUP PI CODE FOR THE IBM-704
BY H. BOHL, JR., E. M. GELBARD, G. R. CULPEPPER, AND P. F. BUERGER

WAPD-TM-143  OCTOBER 1959  TKO
TKO -- A THREE-DIMENSIONAL NEUTRON-DIFFUSION CODE FOR THE IBM-704
BY W. R. CADWELL

WAPD-TM-156  NOVEMBER 1959  ART
ART -- A PROGRAM FOR THE TREATMENT OF REACTOR THERMAL TRANSIENTS ON THE IBM-704

WAPD-TM-162  JANUARY 1959  HERD
HERD 1, 2, AND 3 -- IBM-704 CODES USED TO SOLVE THE ONE-DIMENSIONAL, ONE-VELOCITY TRANSPORT EQUATION WITH ISO-TROPIC SCATTERING
BY L. A. HAGEMAN

WAPD-TM-176  AUGUST 1959  SPAN-2
SPAN-2 -- AN IBM-704 CODE TO CALCULATE UNCOLLIDED FLUX OUTSIDE A CIRCULAR CYLINDER
BY P. A. GILLIS, T. J. LAWTON, AND K. W. BRAND
WAPD-TM-179  MARCH 1960  PDQ-3
PDQ-3 - A PROGRAM FOR THE SOLUTION OF THE NEUTRON-DIFFUSION EQUATIONS IN TWO DIMENSIONS ON THE IBM-704
BY W. R. CADWELL, J. P. DORSEY, H. P. HENDERSON,
J. M. LISKA, J. T. MANDEL, AND M. C. SUGGS

WAPD-TM-186  JANUARY 1960  TUT-T5
THE PHYSICS AND MATHEMATICAL ANALYSIS FOR THE TUT-T5
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BY J. SPANIER

WAPD-TM-196  NOVEMBER 1959  SPIC-1
SPIC-1 - AN IBM-704 CODE TO CALCULATE THE NEUTRON DISTRIBUTION OUTSIDE A RIGHT-CIRCULAR CYLINDRICAL SOURCE
BY P. GILLIS

WAPD-TM-205  FEBRUARY 1960  EURIPUS-3
EURIPUS-3 AND DAEDALUS--MONTE CARLO DENSITY CODES FOR THE IBM-704
BY H. J. AMSTER, H. G. KUEHN, AND J. SPANIER

WAPD-TM-217  JULY 1960  TRIP-1
A TWO-DIMENSIONAL P-3 PROGRAM IN X-Y GEOMETRY FOR THE IBM-704
BY E. GELBARD, J. DAVIS, J. DORSEY, H. MITCHELL, AND J. MANDEL
IBM 704

WAPD-TM-230  JUNE 1961  PDQ-4
PDQ-4 - A PROGRAM FOR THE SOLUTION OF THE NEUTRON-DIFFUSION EQUATIONS IN TWO DIMENSIONS ON THE PHILCO-2000
BY W. R. CADWELL, J. P. DORSEY, J. T. MANDEL, S. H. MEANOR,
AND H. H. MITCHELL

WAPD-TM-235  FEBRUARY 1962  SPAN-3
SPAN-3 A SHIELD DESIGN PROGRAM FOR THE PHILCO-2000
BY W. H. GUILINGER, N. D. COOK, AND P. A. GILLIS

WAPD-TM-241  NOVEMBER 1960  WANDA-5
WANDA-5 A ONE-DIMENSIONAL NEUTRON DIFFUSION EQUATION PROGRAM FOR THE PHILCO 2000
BY O. J. MARLOWE AND M. C. SUGGS

WAPD-TM-272  SEPTEMBER 1963  P3MG1
P3MG1 - A ONE-DIMENSIONAL MULTIGROUP P-3 PROGRAM FOR THE PHILCO-2000
BY H. BOHL, JR., E. M. GELBARD, B. L. ANDERSON, A. P. HEMP-HILL, AND B. P. PETERSON
WAPD-TM-273  MAY 1962  MARC
MARC - A MULTIGROUP MONTE CARLO PROGRAM FOR THE
CALCULATION OF CAPTURE PROBABILITIES
BY E. M. GELBARD, H. B. ONDIS, AND J. SPANIER

WAPD-TM-292  NOVEMBER 1961  MOD86
A FORTRAN CODE FOR GAMMA PENETRATION IN A FINITE SLAB
BY B. D. OREILLY

WAPD-TM-315  APRIL 1962  MOD150
MOD150 - A FORTRAN PROGRAM TO SOLVE THE DOUBLE P-3
EQUATIONS IN SLAB GEOMETRY
BY R. M. CANTWELL

WAPD-TM-32C  APRIL 1962  MOD176
MOD176 - A FORTRAN PROGRAM TO SOLVE SEVERAL P-APPROXI-
MATIONS TO THE FEW GROUP NEUTRON TRANSPORT EQUATION
IN SLAB GEOMETRY
BY R. M. CANTWELL

WAPD-TM-334(REC.) (MF)  JUNE 1964  CINDER
A ONE POINT DEPLETION AND FISSION PRODUCT PROGRAM
BY T. R. ENGLAND

WAPD-TM-352  OCTOBER 1962  MOD322, MOD332
FORTRAN PROGRAMS FOR CALCULATING NEUTRON ABSORPTION IN
SPHERES DISTRIBUTED RANDOMLY
BY R. M. CANTWELL
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WAPD-TM-356  APRIL 1963  GRESG
A FORTRAN PROGRAM TO SOLVE THE P-3 GAMMA RAY EQUATIONS
IN SLAB GEOMETRY
BY W. D. LANNING

WAPD-TM-363  FEBRUARY 1963  PDQ-5
PDQ-5 -- A FORTRAN PROGRAM FOR THE SOLUTION OF THE
TWO-DIMENSIONAL NEUTRON-DIFFUSION PROBLEM
PART I - STEADY-STATE VERSION
BY W. R. CADWELL, J. P. DORSEY, G. M. MORRIS, C. J. PFEIFER,
AND A. J. VIGILOTTI

WAPD-TM-365  FEBRUARY 1963  -
BETTIS FORTRAN PROGRAMMING, AUXILIARY SUBROUTINES

WAPD-TM-369  OCTOBER 1963  MULE
MULE - A FORTRAN PROGRAM FOR THE CALCULATION OF THREE
TYPES OF OVERTONE MODES
BY R. L. EWEN
WAPD-TM-377  DECEMBER 1963  
EQUATIONS AND PROGRAMS FOR SOLUTIONS OF THE NEUTRON GROUP DIFFUSION EQUATIONS BY SYNTHESIS APPROXIMATIONS  
BY S. KAPLAN, O. J. MARLOWE, AND W. R. CADWELL  

WAPD-TM-396  SEPTEMBER 1963  CTS-3  
A MULTI-GROUP TRANSPORT PROGRAM FOR INFINITE CYLINDERS  
BY J. H. BENNETT  
PHILCO-2000  

WAPD-TM-407  OCTOBER 1963  RECAP-1  
RECAP-1 - A MONTE CARLO PROGRAM FOR ESTIMATING EPITHERMAL CAPTURE RATES IN SLABS  
BY N. R. CANDELORE AND R. C. GAST  
PHILCO-2000  

WAPD-TM-427  APRIL 1964  RECAP-2  
RECAP-2 - A MONTE CARLO PROGRAM FOR ESTIMATING EPITHERMAL CAPTURE RATES IN ROD ARRAYS  
BY N. R. CANDELORE AND R. C. GAST  
FORTRAN FOR PHILCO 2000  

WAPD-TM-436  APRIL 1964  EMPIRE-1, -2  
EMPIRE-1 AND EMPIRE-2 FORTRAN MULTIGROUP DISCRETE ORDINATE TRANSPORT CODES TO SOLVE SLAB GEOMETRIES  
BY J. D. BUTLER  

WAPD-TM-437  MARCH 1964  RECAP-3  
RECAP-3 - A MONTE CARLO PROGRAM FOR ESTIMATING EPITHERMAL CAPTURE RATES IN RECTANGULAR OR 60 DEGREE PARALLELOGRAM GEOMETRY  
BY N. R. CANDELORE AND R. C. GAST  
FORTRAN  

WAPD-TM-477 (MF)  JANUARY 1965  PDQ-5  
PDQ-6  
THE PDQ-5 AND PDQ-6 PROGRAMS FOR THE SOLUTION OF THE TWO-DIMENSIONAL NEUTRON DIFFUSION-DEPLETION PROBLEM  
BY W. R. CADWELL, P. F. BUERGER, AND C. J. PFEIFER  
FORTRAN II FOR PHILCO 212  

WAPD-TM-478 (MF)  JANUARY 1965  HARMONY  
SYSTEM FOR NUCLEAR REACTOR DEPLETION COMPUTATION  
BY R. J. BREEN, O. J. MARLOWE, AND C. J. PFEIFER  

WAPD-TM-481  OCTOBER 1964  SNUG  
A MONTE CARLO SHIELD DESIGN PROGRAM FOR THE PHILCO-2000 COMPUTER  
BY N. D. COOK
WAPD-TM-482 OCTOBER 1964 TXYD1
A ONE-GROUP TRANSPORT PROGRAM FOR X-Y GEOMETRY
BY J. H. BENNETT
ALTAC AND TAC FOR PHILCO 2000

WAPD-TM-493 ROC-1
ROC-I A FORTRAN PROGRAM FOR STORAGE OF EVALUATED NUCLEAR DATA
FORTRAN FOR PHILCO 2000

WAPD-TM-494 NOVEMBER 1964 M0564
A FORTRAN PROGRAM FOR SYMMETRIC AND ASYMMETRIC RESONANCE INTEGRALS
BY D. R. HARRIS AND G. J. PETERS
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WAPD-TM-501 APRIL 1965 RAM-1
A FORTRAN PROGRAM TO TRANSFORM AND AVERAGE CROSS SECTIONS FROM THE ROC LIBRARY TAPE FOR USE IN MULTIGROUP NEUTRON TRANSPORT PROGRAMS
BY D. R. HARRIS, C. B. NOLL, AND A. V. VOTA
FORTRAN FOR PHILCO 2000

WCAP - WESTINGHOUSE ELECTRIC CORPORATION
ATOMIC POWER DIVISION
PITTSBURGH 30, PENNSYLVANIA

WCAP-3269-26 SEPTEMBER 1963 LEOPARD
A SPECTRUM DEPENDENT NON-SPATIAL DEPLETION CODE FOR THE IBM-7094
BY R. F. BARRY
FORTRAN II AND FAP

WCAP-6C58 JANUARY 1964 CNCR-2
CNCR-2 - A ONE-DIMENSIONAL FEW GROUP DEPLETION CODE FOR THE IBM-7090, WHICH INCLUDES THE EFFECTS OF WATER DENSITY VARIATIONS ON NEUTRON MODERATION
BY S. M. HENDLEY AND R. A. MANGAN

WCAP-6C58 TEMPORARY ERRATA JUNE 1964 CNCR-2

WCAP-6C59 MARCH 1964 TURBO
TURBO - A TWO DIMENSIONAL FEW-GROUP DEPLETION CODE FOR THE IBM-7090
BY S. M. HENDLEY AND R. A. MANGAN
WL - AIR FORCE WEAPONS LABORATORY
KIRTLAND AIR FORCE BASE
ALBUQUERQUE, NEW MEXICO

WL-TDR-64-46, VOL. I JULY 1964 TRG-SGD
TRG-SGD, A MONTE CARLO PROGRAM TO CALCULATE SECONDARY
GAMMA RAY DOSE FROM A NUCLEAR WEAPON DETONATION
BY HERBERT STEINBERG AND RAPHAEL ARONSON
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BY HERBERT STEINBERG AND RAPHAEL ARONSON
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WL-TDR-64-71, VOL. I AUGUST 1964 SPARES
COMPUTER CODES FOR SPACE RADIATION ENVIRONMENT AND SHIELDING
BY J. A. BARTON, J. R. BENBROOK, W. R. DODERTY,
G. L. KEISTER, B. W. MAR, K. MORIYASU, W. R. SHELTON,
J. R. THOMAS, AND M. C. WILKINSON

XDC, GEMP, DC, AND APEX
NUCLEAR MATERIALS AND PROPULSION OPERATION, AMPRO
GENERAL ELECTRIC CORPORATION
CINCINNATI, OHIO

APEX-4C4 AUGUST 1958 12-O
SHIELDING COMPUTER PROGRAM 12-O, GAMMA RAY PENETRATION
POINT SOURCE
BY W. E. EDWARDS AND J. J. LOECHLER
IBM-704

APEX-5C3 MARCH 1958 10-O
AIRCRAFT NUCLEAR PROPULSION SHIELDING PROGRAM 10-O
BY J. W. HAFFNER, J. J. LOECHLER, AND J. E. MACDONALD
IBM 704

APEX-533 DECEMBER 1958 09-O
PROGRAM REPORT, AIRCRAFT NUCLEAR PROPULSION SHIELDING
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BY J. W. HAFFNER, J. J. LOECHLER, AND J. E. MACDONALD
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APEX-552  
MAY 1958  
FINITE CYLINDER GAMMA HEATING PROGRAM  
BY J. R. BEELER AND A. H. BARNETT  
IBM-704

APEX-6C5  
APRIL 1961  
SHIELD REGION DATA CONVERTER PROGRAM 20-7  
BY J. M. MARTIN

APEX-6C8  
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BY MARY S. FERRY  
IBM-7C90

APEX-610  
MAY 1961  
SHIELDING COMPUTER PROGRAM 20-0  
BY J. E. MACDONALD AND J. T. MARTIN  
FAP

APEX-613  
MARCH 1961  
PHOTON CROSS SECTIONS  
BY MARY S. FERRY

APEX-618  
MARCH 1961  
SYMBOLIC MATRIX TRANSLATOR PROGRAM, FLCCO V FIELD-TEST FORMULATION  
BY B. H. DUANE

APEX-645  
FEBRUARY 1961  
MULTIGROUP NUCLEAR DATA FOR GE-ANPD COMPUTER PROGRAM S  
BY R. L. DOUGH

APEX-7C6  
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FLEXIBLE MONTE CARLO PROGRAMS FMC-N AND FMC-G  
BY J. J. LOECHLER AND J. E. MACDONALD  
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DETERMINATION OF SUITABLE PARAMETERS FOR COMPILING GAMMA RAY AIR SCATTERING PROBABILITIES  
BY M. A. CAPO  
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SPECIALIZED REACTOR-SHIELD MONTE CARLO PROGRAM 18-0  
BY J. E. MACDONALD, J. T. MARTIN, AND J. P. YALCH  
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GEMP-113 JUNE 1962 20-2
PROGRAM 2C-2, A PROGRAM FOR APPROXIMATING CROSS SECTION
DEPENDENCE ON ENERGY
BY J. P. YALCH AND J. E. MACDONALD
FORTRAN

GEMP-114 JUNE 1962 20-3
PROGRAM 2C-3, A PROGRAM FOR COMPUTATION OF TOTAL MACRO-
SCOPIC CROSS SECTION AND COLLISION PROBABILITIES FOR
SPECIFIED MATERIAL COMPOSITION
BY J. P. YALCH AND J. E. MACDONALD
FORTRAN

GEMP-115 JUNE 1962 20-4
PROGRAM 2D-4, A PROGRAM FOR AVERAGING DIFFERENTIAL
SCATTERING CROSS SECTIONS
BY J. P. YALCH AND J. E. MACDONALD
FORTRAN

GEMP-116 JUNE 1962 20-5
PROGRAM 2D-5, A PROGRAM FOR PREPARATION OF SPECTRUM TABLES
FROM EVAPORATION MODEL
BY J. P. YALCH AND J. E. MACDONALD
FORTRAN

GEMP-117 JUNE 1962 20-6
PROGRAM 2D-6, A PROGRAM FOR COMPUTING NUCLEAR EXCITATION AND
TRANSITION PROBABILITIES FROM MEASURED GAMMA RAY INTENSITIES
BY J. P. YALCH AND J. E. MACDONALD
FORTRAN

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PROGRAM 2D-8, A PROGRAM FOR INTERPRETING PROGRAM 18-0
SOURCE AND ESCAPE PARTICLE TAPES
BY J. P. YALCH AND J. E. MACDONALD
FORTRAN

GEMP-272 JANUARY 1964 18-1
ADDENDA TO GEMP-102 DESCRIBING PROGRAM 18-1
BY J. P. YALCH AND J. E. MACDONALD
FORTRAN FOR IBM-7090

GEMP-329 (MF) OCTOBER 1964 FLUXWT
PROGRAM FLUXWT (NMP-800) -- A FLUX WEIGHTING PROGRAM
BY W. B. HENDERSON
FORTRAN II AND FAP

GEMP-384 AUGUST 1965 FMC-N
A NEUTRON CROSS SECTION LIBRARY FOR MONTE CARLO CODES
FMC-N, 18-C, AND 18-I
BY L. S. BURNS
FORTRAN FOR IBM 7090
XDC 57-11-101  NOVEMBER 1957  04-2
SHIELDING COMPUTER PROGRAM 04-2, REACTOR SHIELD ANALYSIS
BY W. E. EDWARDS, J. E. MACDONALD, AND J. J. LOECHLER
IBM 704

XDC 58-1-116  JANUARY 1958  04-2
DESCRIPTION OF SHIELDING COMPUTER PROGRAM 04-2 POST MORTEM
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BY M. A. CAPO AND K. PAINES

XDC 58-3-149  JANUARY 1958  3-DMCRS
MONTE CARLO PROGRAM FOR CYLINDRICAL GEOMETRY, PART ONE,
PHYSICS AND METHOD
BY J. R. BEELER AND J. W. RYAN
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XDC 58-4-121  APRIL 1958  04-1
SHIELDING COMPUTER PROGRAM 04-1, REACTOR SHIELD ANALYSIS
BY W. E. EDWARDS, M. A. CAPO, AND K. PAINES
IBM-704

XDC 58-7-76  MAY 1958  04-0
SHIELDING COMPUTER PROGRAM 04-0, REACTOR SHIELD ANALYSIS
BY W. E. EDWARDS, J. E. MACDONALD, B. GOLDBERG, AND
K. PAINES
IBM-704

XDC 58-11-208  NOVEMBER 1958  04-1, 2, 14-0
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DICTIONS (04-1, 04-2, 14-0)
BY A. W. CASPER

XDC 58-12-73  AUGUST 1958  S3
DIGITAL COMPUTER PROGRAM S3
BY M. J. STANLEY
FLOCO, IBM 704

XDC 59-2-16  JANUARY 1959  14-0, 14-1
SHIELDING COMPUTER PROGRAMS 14-0 AND 14-1, REACTOR SHIELD
ANALYSIS
BY J. T. MARTIN, J. P. YALCH, AND W. E. EDWARDS
FAP

XDC 59-3-52  DECEMBER 1958  14-3
SHIELDING COMPUTER PROGRAM 14-3, DATA CHECK FOR SHIELDING
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BY M. D. MCDONALD
FAP
XDC 59-6-173 JUNE 1959 14-2
SHIELDING COMPUTER PROGRAM 14-2, REACTOR SHIELD ANALYSIS
BY J. T. MARTIN, J. P. YALCH, AND W. E. EDWARDS
FAP

XDC 59-6-220 MAY 1959 C-5
PROGRAM C-5 DIRECT AND ADJOINT BARE REACTOR PROGRAM-
MULTIGROUP CONSTANT GENERATOR
BY P. G. FISCHER, F. D. WENSTRUP, AND R. A. PASTORE

XDC 59-7-150 JULY 1959 04-4
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BY M. A. CAPO, W. E. EDWARDS, J. J. LOECHLER, AND
K. A. PAINE
IBM 704

XDC 59-8-218 JULY 1959 05-0
PROGRAM REPORT, AIRCRAFT NUCLEAR PROPULSION SHIELDING
PROGRAM 05-0
BY J. J. LOECHLER, J. E. MACDONALD, AND H. M. VANVALKENBURG
FORTAN FOR IBM 7090

XDC 59-9-118 JANUARY 1959 S
NEUTRON AND PHOTON TRANSPORT PLANE-CYLINDER-Sphere
GE-ANPD PROGRAMS, VARIATIONAL OPTIMUM FORMULATION
BY B. H. DUANE
FLOCO FOR THE IBM 704 AND 7090

XDC 59-10-79 JULY 1959 0106
MONTE CARLO RESEARCH SERIES - GAMMA HEATING PROGRAM
FOR A THREE-REGION TRIANGULAR CELL LATTICE (PROGRAM 0106)
BY J. R. BEELEER, M. D. MCDONALD, AND J. F. QUINLAN
IBM 704

XDC 59-12-230 DECEMBER 1959 C-FINE
PROGRAM C-FINE - A BARE REACTOR SLOWING DOWN CALCULATION
WITH FINE ENERGY DETAIL
BY E. W. KLINGENBERG AND W. B. HENDERSON
FORTAN II, IBM 704

XDC 60-3-68 JANUARY 1960 F-N
MULTI-GROUP, MULTI-REGION, ONE SPACE DIMENSION NEUTRON
DIFFUSION THEORY CALCULATION
BY P. G. FISCHER
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XDC 60-3-103 FEBRUARY 1960 07-1
704 PROGRAM REPORT, AIRCRAFT NUCLEAR PROPULSION SHIELDING
PROGRAM 07-1
BY J. J. LOECHLER AND J. E. MACDONALD
XDC 60-5-50 OCTOBER 1959 0235
PHOTON AND ELECTRON ENERGY SPECTRA DURING PHOTON ENERGY DEGRADATION PROGRAM FOR THE IBM 704
BY J. R. BEELER AND M. D. MCDONALD

XDC 60-9-19 SEPTEMBER 1960 0307
MODIFICATIONS TO THE HETEROGENEOUS CYLINDER GAMMA HEATING PROGRAM 0307
BY M. R. SMITH
IBM 704

XDC 60-10-133 OCTOBER 1960 19-0
SHIELDING COMPUTER PROGRAM 19-0, FAST NEUTRON REMOVAL CROSS SECTION COMPUTATION
BY K. B. HANCHON AND M. L. POPE

XDC 60-11-138 NOVEMBER 1960 GAMMA-P
PRODUCTION CROSS SECTIONS FOR GAMMA RAYS
BY M. S. FERRY
FORTRAN FOR IBM-7090

XDC 60-12-70 SEPTEMBER 1960 535
ANP PROGRAM NUMBER 535, BERYLLIUM (N,2N) ENERGY TRANSFER CROSS SECTIONS
BY T. J. KOSTIGEN
FORTRAN II

XDC 61-1-91 JANUARY 1961 18-0
SPECIALIZED REACTOR-SHIELD MONTE CARLO PROGRAM 18-0
BY J. E. MACDONALD, J. T. MARTIN, AND J. P. YALCH
FAP

XDC 61-4-52 MARCH 1961 S-6
FLEXIBLE MONTE CARLO SOURCE GENERATOR
BY J. J. LOECHLER

XDC 61-5-1 APRIL 1961 15-2
PROGRAM 15-2, A MONTE CARLO CALCULATION OF GAMMA RAY SCATTERING IN AIR
BY N. R. BAUMGARDT, A. TRAMPUS, AND J. E. MACDONALD
FORTRAN