BIBLIOGRAPHY OF THE COMPUTER CODES LITERATURE EXAMINED BY THE RADIATION SHIELDING INFORMATION CENTER

July 1966

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RADIATION SHIELDING INFORMATION CENTER
July 1966

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*Oak Ridge Computer Sciences Center

OCTOBER 1966

OAK RIDGE NATIONAL LABORATORY
Oak Ridge, Tennessee
operated by
UNION CARBIDE CORPORATION
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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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PROGRAM FOR GAMMA-RAY ATTENUATION THROUGH MULTILAYER COMPOSITE SHIELDS
PART 1. MATHEMATICAL BASES OF THE PROGRAM
BY L. CRISCUOLO
PART 2. CODING OF THE PROGRAM
BY L. CRISCUOLO AND M. G. CERISOLA
FORTRAN FOR IBM-704

EUR-2294.E 1965 FIRST I
IBM 7C90 FORTRAN II CODE FOR THE CALCULATION OF A NEUTRON SPECTRUM FOR A HETEROGENEOUS LATTICE
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 SALOMON, AN IBM 7090 CODE FOR GAMMA
TRANSPORT CALCULATIONS
BY G. ENGSTROM
FORTRAN FOR IBM 7090

FOA-4 A-4411-411 JANUARY 1965 PROTOS
A MONTE CARLO PROCEDURE FOR CALCULATING THE MIGRATION OF
PROTONS TAKING ACCOUNT ONLY OF ELECTROMAGNETIC INTERACTIONS
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
PROGRAM FOR TREATING PROTON SLOWING DOWN DUE TO ATOMIC
COLLISIONS
BY C. JOHANSSON
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
BY S. R. LENIHAN

GA-4132 JULY 1963 GATHER II
GATHER-II - AN IBM-7090 FORTRAN II PROGRAM FOR THE COMPU-
TATION 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
NEUTRON-DIFFUSION EQUATIONS IN TWO DIMENSIONS, WITH
ARBITRARY GROUP SCATTERING, FOR THE IBM-7090 FORTRAN II
SYSTEM
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
BY G. D. JOANOU AND J. S. DUDEK
IBM 7C90

GA-4436  DECEMBER 1963  GGC II
GGC-II, A PROGRAM FOR USING THE GAM-II AND GATHER-II
SPECTRUM CODES IN PREPARING MULTIGROUP CROSS-SECTION
INPUT ON PUNCHED CARDS FOR THE GAZE, GAZED, DSN, GAPLSN,
2DXY, TDC, GAMBLE, FEVER AND GAO CODES
BY C. V. SMITH AND H. A. VIEWEG
IBM 7C90

GA-4972  MARCH 1964  GAPLSN
GAPLSN - A MODIFIED DSN PROGRAM FOR THE SOLUTION OF THE
ONE-DIMENSIONAL ANISOTROPIC TRANSPORT EQUATION
BY J. H. ALEXANDER, G. W. HINMAN, AND J. R. TRIPLETT
IBM 7C90

GA-5418 (MF)  JULY 1964  CAP
A COLLIMATOR ANALYSIS PROGRAM
BY HENRY C. HONECK
FORTRAN

GA-6596  DECEMBER 1964  HEXSCAT
GASKET
QUARTERLY PROGRESS REPORT FOR THE PERIOD ENDING DECEMBER 31,
1964
BY J. R. BEYSTER, ET AL.

GA-6685 (MF)  SEPTEMBER 1965  UNPACK
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. LESHAN, 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
FOR THE IBM-7044. PRELIMINARY DESCRIPTION
BY M. MERRILL
FORTRAN IV

GAMD - SEE GA

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

GEAP-4772 (MF) JANUARY 1965 DARE
EVERS-R-NUCLEAR SUPERHEAT FUEL DEVELOPMENT PROJECT. DARE
CODE FOR THE THERMAL HYDRAULIC FUEL PERFORMANCE EVALUATION
BY B. G. ATRAZ

GEMP - SEE XDC

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

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

HW-73381 APRIL 1962 MAC
MAC - A BULK SHIELDING CODE
BY E. G. PETERSON
IBM 7C90

HW-73381 SUP. I JANUARY 1964 MAC X-SECTS
TWO CROSS SECTION LIBRARIES FOR USE WITH MAC SHIELDING CODE
BY J. GREENBORG

HW-8C246 (MF) FEBRUARY 1964 MIDAS
A SIMPLIFIED METHOD FOR PROGRAMMING A 7090 COMPUTER FOR
SIMULATION OF DYNAMIC SYSTEMS
BY R. D. BENHAM
IBM 7C90

HW-8C968 (MF) MARCH 1964 HFN
USERS MANUAL FOR HFN AND CALX CHAIN
BY E. L. KELLEY, JR.
IBM 7C90

HW-83784 SEPTEMBER 1964 BREMRAD
A COMPUTER CODE FOR EXTERNAL AND INTERNAL BREMSSTRAHLUNG
CALCULATIONS
BY H. H. VAN TUYL
FORTRAN II, IBM 7090

HW-83785 SEPTEMBER 1964 ISOGEN
ISOGEN - A COMPUTER CODE FOR RADIOISOTOPE GENERATION
CALCULATIONS
BY H. H. VAN TUYL

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

IDO-16856 MAY 1963 MIST
INTERNUC-67
A MULTIGROUP INTERNUCLEAR SLAB TRANSPORT CODE
BY G. E. PUTNAM AND D. M. SHAPIRO
FORTRAN FOR IBM-7090

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

IDO-16984 JULY 1964 NS X-SECT
A MACHINE PROGRAM FOR CALCULATING SLOW NEUTRON SCATTERING
CROSS SECTIONS WITH APPLICATION TO WATER
BY H. L. MCMURRY AND L. J. GANNOT

IDO-17075 SEPTEMBER 1965 CEP
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

IDO-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
ORNLT-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
FAST REACTORS
BY KINICHI MORIGUCHI AND TOMOO SUZUKI
FORTRAN II, IBM 7090 AND FORTRAN IV, IBM 7044

K - SEE UCC

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

KAPL-1549 AUGUST 1956
TRIXY
TRIXY - A COMPUTER PROGRAM FOR MULTIGROUP NUCLEAR REACTOR
CALCULATIONS IN THREE-SPACE DIMENSIONS
BY P. GREEBLER

KAPL-1724 APRIL 1957
CURE
CURE - A GENERALIZED TWO-SPACE-DIMENSION MULTIGROUP
CODING FOR THE IBM-704
BY E. L. WACHSPRESS

KAPL-2225 SEPTEMBER 1962
KERNEL
PAM
PROGRAMS FOR USE IN THE CALCULATION OF THE THERMAL
SCATTERING MATRIX FOR CHEMICALLY BOUND SYSTEMS
BY F. D. FEDERIGHI AND D. T. GOLDMAN
FORTRAN AND ALTAC FOR PHILCO 2000

KAPL-3013 JUNE 1964
DRAM
A MONTE CARLO PROGRAM FOR THE CALCULATION OF CAPTURE PROB-
ABILITIES
BY G. J. HABETTER, R. A. PFEIFFER, AND J. E. TUECKE
ALTAC AND TAC FOR THE PHILCO 2000
KAPL-M-6119  FEBRUARY 1964  FICS
FICS, A PROGRAM TO COMPUTE FEW-GROUP CONSTANTS WITHIN
THE KARE DIFFUSION THEORY SYSTEM
BY D. E. GOODMAN

KAPL-M-6159  MAY 1964  SOSH I
SOSH I - A COMPUTER PROGRAM FOR SHIELDING CALCULATIONS
BY M. S. PENDERGAST, JR.

KAPL-M-6160 (MSP-4)  MAY 1964  SOSH II
SOSH II - A COMPUTER PROGRAM FOR SHIELDING CALCULATIONS
(A REVISION AND EXTENSION OF SOSH I)
BY M. S. PENDERGAST, JR.

KAPL-M-6174 (MF)  JULY 1964  MOST
A MULTIDIMENSIONAL OPTIMIZATION SCHEME
BY C. R. LUBITZ AND G. A. SHANHOLT
FORTRAN

KAPL-M-6185 (MF)  JULY 1964  HOTSTICK
KARE AXIAL POWER DISTRIBUTION PROGRAM FOR THE PHILCO 2000
BY D. E. GOODMAN
PHILCO 2000

KAPL-M-6422 (MF)  DECEMBER 1964  ETC4A
A ONE DIMENSIONAL MONOENERGETIC TRANSPORT PROGRAM
(REVISION II)
BY E. I. BROOKS, JR., C. W. DAWSON AND T. E. DUDLEY

KAPL-M-6424 (MF)  NOVEMBER 1964  MULE
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

KAPL-M-6432 (MF)  NOVEMBER 1964  OSCAR
A PILE OSCILLATOR DATA REDUCTION PROGRAM FOR THE PHILCO
2C00 DIGITAL COMPUTER
BY J. N. BRAZOS, B. A. GOTTSCHALK, AND A. L. LIEDEL
FORTRAN FOR IBM 704 AND PHILCO S-2000

KAPL-M-FDF-2  NOVEMBER 1962  SWAKRAUM
SWAKRAUM - A SPATIALLY DEPENDENT THERMAL SPECTRUM CODE
FOR THE PHILCO-2000
BY F. D. FEDERIGHI

KAPL-M-GE5-4  MAY 1962  GAM I
GAM I - A GAMMA CROSS SECTION CODE FOR THE PHILCO
TRANSAC S-2000
BY G. E. SABIAN
KDP - SEE UCC

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 - INSTITUTT FOR ATOMENERGI
KJELLER RESEARCH ESTABLISHMENT
KJELLER, NORWAY

KR-71 JUNE 1964 K-7 TRANSP0
ONE GROUP NEUTRON TRANSPORT IN A HETEROGENEOUS CYLINDRI-
CALLY SYMMETRIC REACTOR CELL
BY R. J. J. STAMMLER

LA - SEE LAMS
LAMS - LOS ALAMOS SCIENTIFIC LABORATORY
LOS ALAMOS, NEW MEXICO
(OPERATED FOR THE USAEC BY THE UNIVERSITY OF CALIFORNIA)

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

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

LAMS-2856 MARCH 1963 MCS
A GENERAL MONTE CARLO NEUTRONICS CODE
BY ROBERT R. JOHNSTON
IBM 7090
FANTASIA II AND TRIPOD II - SHIELDING CODES FOR THE IBM 7090
BY HERBERT A. STEINBERG, J. HEITNER, AND R. ARONSON
MND-C-2501 MAY 1961 CSDP
APWRC--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-1
SNAP PROGRAMS - M-1 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
TOWER SHIELD EXPERIMENTS, PART I, ANNEX-I
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
RADIATION DOSE CALCULATIONS
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
CALCULATIONS
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
BY D. S. DUNCAN, A. B. SPEIR, G. H. ANNO, AND D. C. KOLESAR
FORTRAN II FOR IBM-709

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

NAA-SR-MEMO-8969  OCTOBER 1963  RATRAP
THE RATRAP 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
IN CYLINDRICAL REACTORS
BY R. H. NORMAN, D. G. OLIVER, AND W. R. CASTLE

NAA-SR-MEMO-10544 NOVEMBER 1964 MAG
A PROGRAM TO PREPARE FAST GROUP CROSS SECTIONS IN THE
DTF FORMAT
BY R. S. HUBNER
FORTRAN II FOR IBM 7090

NAA-SR-MEMO-10557 (PT.1) (MF) OCTOBER 1964 COLEFF
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

NAA-SR-MEMO-10557 (PT.2) (MF) OCTOBER 1964 COLEFF
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
NAA-SR-TDR-5954
DECEMBER 1960
FARSE-I A
FARSE-I A A MODIFICATION OF FARSE TO INCLUDE ANGULAR
DEPENDENCE OF SHIELD LEAKAGE
BY K. L. ROONEY

NAA-SR-TDR-8516 REV.
MAY 1963
ANEX II
ANALYTIC TECHNIQUES FOR THE CALCULATION OF THE ORNL
TOWER SHIELD EXPERIMENTS, PART II
BY R. S. HUBNER
FORTRAN

NAA-SR-TDR-9327
DECEMBER 1963
MORTIMER
MORTIMER - A MODIFICATION OF THE RATRAP CODE WHICH INCLUDES
THE TWO COMPONENT METHOD OF SHIELD ANALYSIS
BY W. B. GREEN
FORTRAN

NARF - NUCLEAR AIRCRAFT RESEARCH FACILITY
GENERAL DYNAMICS
FORT WORTH, TEXAS

NARF-6C-8T-VOL.I
MAY 1950
K-74
(FZK-9-147, VOL. I)
MONTE CARLO CALCULATIONS OF FAST-NEUTRON SCATTERING IN
AIR
BY M. B. WELLS

NARF-6C-8T-VOL.II
AUGUST 1960
K-74
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MONTE CARLO CALCULATIONS OF FAST-NEUTRON SCATTERING IN
AIR
BY M. B. WELLS

NARF-61-33T
NOVEMBER 1961
LO5
A MONTE CARLO PROCEDURE FOR CALCULATING PENETRATION OF
NEUTRONS THROUGH STRAIGHT CYLINDRICAL DUCTS
BY D. G. COLLINS.
FAP

NARF-61-39T
DECEMBER 1961
C-17, L-63
SHIELD PENETRATION PROGRAMS C-17 AND L-63
BY D. M. PETERSON
FAP
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. 1 - 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 (PO9)
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 (PO9)
RADIOLOGICAL ARMOR PROGRAM METHODS AND DATA COMPILATION,
VOLUME 5A. COMPUTER PROCEDURES. SLAB PENETRATION AND
REFLECTION CALCULATION - PROGRAMMERS MANUAL SUPPLEMENT
BY J. L. HUNTER
FOR IBM 7090

FZK-20C-5B 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) RADIOLGICAL ARMOR PROGRAM METHODS AND DATA COMPILATION, VOLUME 5B COMPUTER PROCEDURES. COMBINE TRANSMISSION CALCULATION (E20) - PROGRAMMERS MANUAL SUPPLEMENT
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FORTRAN II FOR IBM 7090 AND 7094

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BY J. L. HUNTER
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TROY, NEW YORK

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SANTA MONICA, CALIFORNIA

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TRG - UK-AEA, THE REACTOR GROUP
RISLEY, WARRINGTON, LANCASHIRE

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UCC - UNION CARBIDE CORPORATION (NUCLEAR DIVISION - K-25)
OAK RIDGE, TENNESSEE

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LIVERMORE, CALIFORNIA
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IBM 7090 AND CDC 1604

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USNCEL- UNITED STATES NAVAL CIVIL ENGINEERING LABORATORY
PORT HUENEME, CALIFORNIA

USNCEL-TR-379 JUNE 1965 UNIGEOM
FOR ADONIS
A MONTE CARLO CALCULATION OF NEUTRON STREAMING THROUGH
TWO-LEGGED-DUCT ENTRANCEWAYS
BY LEONARD B. GARDNER AND ALAN J. METTLER
FORTRAN FOR IBM-7090
USNRDL - U.S. NAVAL RADIOLOGICAL DEFENSE LAB.
SAN FRANCISCO, CALIFORNIA

USNRDL-TR-829 MARCH 1965 PULS-HT
A COMPUTER PROGRAM FOR UNFOLDING PULSE-HEIGHT DISTRIBUTIONS
BY C. V. SMITH AND N. E. SCOFIELD
FORTRAN FOR IBM-704

WADC - WRIGHT AIR DEVELOPMENT CENTER, USAF,
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

WADC-TR-58-80 APRIL 1958 TRIG-I
A MONTE CARLO CODE FOR GAMMA RAY TRANSMISSION THROUGH
LAMINATED SLAB SHIELDS
BY R. A. LIEDTKE AND H. A. STEINBERG
IBM 704

TRANSMISSION MATRIX AND MONTE CARLO GAMMA RAY PENETRATION
BY RAPHAEL ARONSON
IBM 704

WADC-TR-59-443 SEPTEMBER 1960 FANTASIA,
FANTASIA AND TRIPOD - SHIELDING CODES FOR THE 1103A
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BY H. STEINBERG, J. HEITNER, AND R. ARONSON

WADC-TR-59-771 AUGUST 1960 TRIGR
MONTE CARLO CALCULATIONS OF GAMMA RAY PENETRATION
BY RAPHAEL ARONSON
IBM 704

WADC-TR-59-772 AUGUST 1960 TRAMM-P
THE TRANSMISSION MATRIX METHOD FOR PENETRATION PROBLEMS
BY DAVID YARMUSH, JULIUS ZELL, AND RAPHAEL ARONSON
FORTRAN II FOR IBM 704
WANL - WESTINGHOUSE ELECTRIC CORPORATION
ASTRONUCLEAR LABORATORY
PITTSBURGH 36, PENNSYLVANIA

WANL-TNR-063 SEPTEMBER 1962 ACT I
ACTIVATION SOURCE STRENGTH PROGRAM
BY P. C. HEISER AND L. O. RICKS
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WANL-TNR-063-ADDENDUM - ACT II
AN ADDENDUM TO ACTIVATION SOURCE STRENGTH PROGRAM
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A TWO-DIMENSIONAL TIME-DEPENDENT MULTI-GROUP DIFFUSION CODE
BY J. W. RIESE AND G. COLLIER
FORTRAN

WAPD - BETTIS ATOMIC POWER LABORATORY
PITTSBURGH, PENNSYLVANIA
(OPERATED FOR THE USAEC BY WESTINGHOUSE ELECTRIC CORP.)

WAPD-232 MAY 1960 RDR-5, PREP
A P-9 MULTIGROUP METHOD FOR SOLUTION OF THE TRANSPORT
EQUATION IN SLAB GEOMETRY
BY R. C. GAST
NORC COMPUTER

WAPD-BT-31 (PAGE 43-49) 1964 GR-1
PENETRATION OF POINT MONODIRECTIONAL GAMMA RAYS THROUGH
SLAB SHIELDS
BY K. SHURE
PHILCO-2000

WAPD-CONF-39-61 MAY 1963 STATURE
COMPUTER ANALYSIS OF THERMAL STRESSES IN ANNULAR CONCRETE
SHIELD
BY DAVID R. THOMAS
FORTRAN FOR IBM 7094

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THE USE OF CORRELATED SAMPLING IN MONTE CARLO CALCULATION
OF CHANGES IN THERMAL ABSORPTION
BY N. J. CURLES, JR. AND L. A. ONDIS
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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
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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

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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
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

THE PHYSICS AND MATHEMATICAL ANALYSIS FOR THE TUT-T5 MONTE CARLO CODE
BY J. SPANIER

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

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

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

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

SPAN-3 A SHIELD DESIGN PROGRAM FOR THE PHILCO-2000
BY W. H. GUILINGER, N. O. COOK, AND P. A. GILLIS

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

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
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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
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BY R. M. CANTWELL
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A FORTRAN PROGRAM TO SOLVE THE P-3 GAMMA RAY EQUATIONS
IN SLAB GEOMETRY
BY W. D. LANNING

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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

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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  
A MULTI-GROUP TRANSPORT PROGRAM FOR INFINITE CYLINDERS  
BY J. H. BENNETT  
PHILCO-2000

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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

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

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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

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JANUARY 1965  
PDQ-5  
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THE PDQ-5 AND PDQ-6 PROGRAMS FOR THE SOLUTION OF THE TWO-DIMENSIONAL NEUTRON DIFFUSION-DEPLETION PROBLEM  
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FORTRAN II FOR PHILCO 212

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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
A ONE-GROUP TRANSPORT PROGRAM FOR X-Y GEOMETRY
BY J. H. BENNETT
ALTAC AND TAC FOR PHILCO 2000

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A FORTRAN PROGRAM FOR SYMMETRIC AND ASYMMETRIC RESONANCE INTEGRALS
BY D. R. HARRIS AND G. J. PETERS
FORTRAN FOR PHILCO 2000

WAPD-TM-501 April 1965
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
A SPECTRUM DEPENDENT NON-SPATIAL DEPLETION CODE FOR THE IBM-7094
BY R. F. BARRY
FORTRAN II AND FAP

WCAP-6C58 January 1964
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BY S. M. HENDLEY AND R. A. MANGAN

WCAP-6C58 TEMPORARY ERRATA June 1964
CNCR-2

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TURBO - A TWO DIMENSIONAL FEW-GROUP DEPLETION CODE FOR THE IBM-7090
BY S. M. HENDLEY AND R. A. MANGAN
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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TRG-SGD, A MONTE CARLO PROGRAM TO CALCULATE SECONDARY GAMMA RAY DOSE FROM A NUCLEAR WEAPON DETONATION
BY HERBERT STEINBERG AND RAPHAEL ARONSON
FORTRAN/CODAP

SPARES COMPUTER CODES FOR SPACE RADIATION ENVIRONMENT AND SHIELDING
BY J. A. BARTON, J. R. BENBROOK, W. R. DOHERTY,
G. L. KEISTER, B. W. MAR, K. MORIYASU, W. R. SHELDON,
J. R. THOMAS, AND M. C. WILKINSON

SHIELDING COMPUTER PROGRAM 12-0, GAMMA RAY PENETRATION POINT SOURCE
BY W. E. EDWARDS AND J. J. LOECHLER
IBM-704

AIRCRAFT NUCLEAR PROPULSION SHIELDING PROGRAM 10-0
BY J. W. HAFFNER, J. J. LOECHLER, AND J. E. MACDONALD
IBM 704

PROGRAM REPORT, AIRCRAFT NUCLEAR PROPULSION SHIELDING PROGRAM 09-0
BY J. W. HAFFNER, J. J. LOECHLER, AND J. E. MACDONALD
FORTRAN FOR IBM 7090
APEX-552  MAY 1958  FCGH
FINITE CYLINDER GAMMA HEATING PROGRAM
BY J. R. BEELER AND A. H. BARNETT
IBM-704

APEX-6C5  APRIL 1961  20-7
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BY J. M. MARTIN

APEX-6C8  APRIL 1961  FN-GAMMA
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FUSION THEORY CALCULATION - PROGRAM FN-GAMMA
BY MARY S. FERRY
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FAP

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BY MARY S. FERRY

APEX-618  MARCH 1961
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BY B. H. DUANE

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

APEX-7C6  APRIL 1961  FMC-N, -G
FLEXIBLE MONTE CARLO PROGRAMS FMC-N AND FMC-G
BY J. J. LOECHLER AND J. E. MACDONALD
FAP

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RAY AIR SCATTERING PROBABILITIES
BY M. A. CAPO
FORTRAN FOR IBM 7090

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SPECIALIZED REACTOR-SHIELD MONTE CARLO PROGRAM 18-0
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FAP
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PROGRAM 20-2, A PROGRAM FOR APPROXIMATING CROSS SECTION
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GEMP-114 JUNE 1962 20-3
PROGRAM 20-3, 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 20-4, A PROGRAM FOR AVERAGING DIFFERENTIAL
SCATTERING CROSS SECTIONS
BY J. P. YALCH AND J. E. MACDONALD
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PROGRAM 20-5, A PROGRAM FOR PREPARATION OF SPECTRUM TABLES
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FORTRAN

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FORTRAN

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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
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FMC-N, 18-0, AND 18-1
BY L. S. BURNS
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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
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XDC 58-1-116  JANUARY 1958  04-2
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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
IBM 704

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. PAINE
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. PAINNE
IBM-704

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

XDC 58-12-73  AUGUST 1958  53
DIGITAL COMPUTER PROGRAM 53
BY M. J. STANLEY
FLOCO, IBM 704

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

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

SHIELDING COMPUTER PROGRAM 04-4, REACTOR SHIELD ANALYSIS
BY M. A. CAPO, W. E. EDWARDS, J. J. LOECHLER, AND
K. A. PAINE
IBM 704

PROGRAM REPORT, AIRCRAFT NUCLEAR PROPULSION SHIELDING
PROGRAM 05-0
BY J. J. LOECHLER, J. E. MACDONALD, AND H. M. VANVALKENBURG
FORTRAN FOR IBM 7090

NEUTRON AND PHOTON TRANSPORT PLANE-CYLINDER-Sphere
GE-ANPD PROGRAMS, VARIATIONAL OPTIMUM FORMULATION
BY B. H. DUANE
FLOCO FOR THE IBM 704 AND 7090

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

PROGRAM C-FINE - A BARE REACTOR SLOWING DOWN CALCULATION
WITH FINE ENERGY DETAIL
BY E. W. KLINGENBERG AND W. B. HENDERSON
FORTRAN II, IBM 704

MULTI-GROUP, MULTI-REGION, ONE SPACE DIMENSION NEUTRON
DIFFUSION THEORY CALCULATION
BY P. G. FISCHER
FORTRAN II FOR IBM-704

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