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

July 1967

Betty F. Maskewitz Vivian A. Jacobs Jane Gurney

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July 1967

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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 the 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 W. J. FADER, R. J. RODGERS, F. R. MYNATT, AND
R. E. LAWRENCE
FLOCO II FOR IBM-7090

CEA - COMMISSARIAT A L-ENERGIE
SACLAY, FRANCE

CEA-N-564 (ORNL-TR-1376) OCTOBER 1965 CENTAURE 3
CALCULATION OF REFLECTION AND TRANSMISSION COEFFICIENTS OF
A SLAB OF A GIVEN MATERIAL FOR THERMAL NEUTRONS - EVALUATION
OF THE RADIATIVE CAPTURE GAMMAS
BY JACQUES BRISBOIS AND JACQUES DUCO
IBM 7090

CEA-N-575 (ORNL-TR-1372) DECEMBER 1965 STOCK-CAR
DEVELOPMENT OF STOCK-CAR COMPUTER PROGRAM FOR FLUX AND
DOSE DUE TO A SOLID OR TORIC CYLINDRICAL SOURCE
BY BERNADETTE DAVERSIN
FERRANTI-MERCURY

CEA-N-583 (ORNL-TR-1378) JANUARY 1966 NIOBE
NIOBE COMPUTER PROGRAM DESCRIPTION AND USE
BY GILLES BRANDICOURT AND JACQUES COLLAMBOURG
IBM 7094

CEA-N-591 (ORNL-TR-1374) MARCH 1966 DOMINO 2
CALCULATION OF THE THERMAL NEUTRON FLUX AND CURRENTS,
ENERGY AND GAMMA DOSE ON THE AXIS OF A CHANNEL OF A
GRAPHITE-CO2 REACTOR
BY JACQUES DUCO
FORTRAN II FOR IBM 7094

CEA-N-593 (ORNL-TR-1377) APRIL 1966 MALAGA
PROPAGATION OF NEUTRONS TREATED BY THE AGE THEORY
BY JACQUES BRISBOIS, CHRISTIAN DEVILLERS AND THERESE DOSA
FORTRAN FOR IBM 7090-7094

CEA-R-2614 1965 NUINT
THEORETICAL ASPECTS OF NEUTRON INTERACTION
BY JEAN MORET-BAILLY, F. PENET, AND J. C. SPINELLI
FORTRAN, FAP FOR IBM 7094

CEA-R-2747 (MF) FEBRUARY 1965 ALCI
SPECIFICATIONS FOR A MULTI-GROUP SCATTERING CODE OF
TWO DIMENSIONS ALCI
BY JEAN-PAUL BAYARD, ANDRE GUILLOU, BERNARD LAGO,
MARIE-JOSEPHE BUREAU DU COLOMBIER, GINETTE GUILLOU,
AND CHANTAL VASSEUR

CEA-R-2872 (ORNL-TR-1367) OCTOBER 1965
MONTE CARLO METHOD - CODES FOR THE STUDY OF CRITICALITY PROBLEMS
BY J. MOREAU, H. RABOT, AND C. ROBIN
IBM 7094

CEA-R-2896 (MF) FEBRUARY 1966 JANUARY
IBM 7094 PROGRAM FOR THE RESOLUTIONS OF CELL PROBLEMS IN PLANAR, SPHERICAL, AND CYLINDRICAL GEOMETRY USING THE DOUBLE P -SUB N- APPROXIMATION
BY A. AMOYAL, AND H. TARIEL
IBM 7094

CEA-R-2923 (MF) DECEMBER 1965 MUDE
RESOLUTION OF THE MULTIGROUP SCATTERING EQUATION IN A ONE-DIMENSIONAL GEOMETRY AND SUBSIDIARY CALCULATIONS
BY C. BORE, Y. DANDEU, C. SAINT-AMAND
FORTRAN II FOR IBM 7090 AND 7094

CEA-R-2977 (MF) FEBRUARY 1966 ORHEX
(DEP 053S)
RESOLUTION OF TWO-GROUP SCATTERING EQUATIONS IN HEXAGONAL GEOMETRY
BY J. P. BAYARD, A. GUILLOU, GINETTE GUILLOU, AND THERESO LENA
FAP AND FORTRAN FOR 7094 MOD. II

CEN/FAR CENTER OF NUCLEAR STUDIES
FONTENAY-AUX-ROSES
FRANCE

CEN/FAR 17 (ORNL-TR-1379) APRIL 1966 05R-GEOM
GEOMETRIC TREATMENT OF TRAJECTORIES IN THE 05R PROGRAM
BY MRS. YVETTE CASEAU
FORTRAN FOR IBM 7090 AND CDC 1604

DEP/SEPP 246/62 DECEMBER 1962 MANON
(AEC-TR-6063) CARMEN
PRACTICAL UTILIZATION OF THE PROGRAMS MANON 749/B AND CARMEN/868
BY J. P. BARTHE
FRENCH AUTO-CODE FOR FERRANTI MERCURY COMPUTER

DEP/SEPP 488/66 MAY 1966 ZEUS 2
(ORNL-TR-1371)
ONE VELOCITY THREE-DIMENSIONAL MONTE CARLO
BY C. DEVILLERS, P. LAFORE, AND J. C. NIMAL
IBM 7094

CNEN-RT COMITATO NAZIONALE PER L ENERGIA NUCLEARE
ITALY

CNEN-RT/FI-(65)51 (MF) NOVEMBER 1965 HARBOR
(CNEN-ROME)
ONE DIMENSION TWO-GROUP CODE FOR BOILING WATER REACTOR CALCULATIONS
BY A. GALATI, P. LOIZZO, AND A. PEPINO
FORTRAN FOR IBM 7094

CNEN-RT/FIMA-(65)1 JUNE 1965 CYRCO
(CNEN/BOLOGNA)
CYRCO PROGRAMMA PER II CALCOLO DI CRITICITA DI REATTORI CILINDRICI TOTALMENTE RIFLESSI
BY P. AZZONI, F. CASALI, AND P. POLI
FORTRAN II FOR IBM 704 AND 7094

CNEN-RT FIMA-(65)-5 (MF) NOVEMBER 1965 RAM
RAM - AN IBM-7094 MONTE CARLO CODE FOR CRITICALITY CALCULATIONS
BY E. CUPINI AND A. DEMATTEIS
FORTRAN II AND FAP FOR IBM 7094

CONVAIR- A DIVISION OF GENERAL DYNAMICS CORPORATION
FORT WORTH, TEXAS
(SEE ALSO FZK AND NARF)

MR-E-240 DECEMBER 1958 D-34
18 GROUP - 3 REGION REACTOR EVALUATION (IBM 704 PROCEDURE D34)
BY M. K. HULLINGS AND G. P. OWEN

CRRP - ATOMIC ENERGY OF CANADA LIMITED (SEE AECL)
CHALK RIVER, ONTARIO, CANADA

CRRP-1127 (AECL-1678) DECEMBER 1962 NEREM, GAY, DNEUT
BENDIX G-20 COMPUTER PROGRAMS FOR USE IN REACTOR SHIELD DESIGN
BY A. G. FOWLER

CRRP-1151 JULY 1963 XENOSC
(AECL-1803)
A G-20 PROGRAM FOR STUDYING XENON SPATIAL OSCILLATIONS AND APPLICATION TO CANDU
BY R. M. PEARCE AND R. E. ROTH

CVNA - CAROLINAS VIRGINIA NUCLEAR POWER ASSOCIATES, INC.
COLUMBIA, S. C.

CVNA-146 - I-II OCTOBER 1962 NDC
NDC - A FORTRAN PROGRAM FOR UNIT CELL NUCLEAR DESIGN CALCULATIONS FOR ROD-CLUSTERED PRESSURE-TUBE LATTICES, VOL. I. PROGRAM FORMULATION AND APPLICATION, VOL. II. PROGRAM COMPOSITION AND LISTING
BY RAYMOND G. SAINT-PAUL AND SURENDRA A. RAJE

CWR - CURTISS-WRIGHT CORPORATION
RESEARCH DIVISION
QUEHANNA, PENNSYLVANIA

CWR-900-13-1 APRIL 1959 MAGNET I
MONTE CARLO CALCULATIONS FOR NEUTRON AND GAMMA PARTICLE INTERACTIONS AND TRANSPORT IN ONE, TWO, AND THREE DIMENSIONAL NUCLEAR ASSEMBLIES
BY W. J. ROBERTS, K. L. ROONEY, J. F. LOGUE, AND J. A. DEVRIES
IBM 704

CWR-900-13-2 MAGNET II
MONTE CARLO CALCULATIONS FOR NEUTRON AND GAMMA PARTICLE INTERACTIONS AND TRANSPORT IN ONE, TWO, AND THREE DIMENSIONAL NUCLEAR ASSEMBLIES - MAGNET II, PROGRAM FOR THREE DIMENSIONAL PLAQUE GEOMETRY (REVISED)
BY J. F. LOGUE, W. J. ROBERTS, K. L. ROONEY, AND J. A. DEVRIES
IBM 704

D - THE BOEING COMPANY
SEATTLE 24, WASHINGTON

D2-90418-1 SPARES
GENERAL PROCEDURE. SPACE RADIATION ENVIRONMENT AND SHIELDING CODES, VOL. I
BY BOEING STAFF MEMBERS
FORTRAN FOR IBM 7090

D2-90418-2 SPARES
VAN ALLEN RADIATION
BY BOEING STAFF MEMBERS
FORTRAN FOR IBM-7090

D2-90418-3 SPARES
APOLLO SECTOR ANALYSIS
BY BOEING STAFF MEMBERS
FORTRAN FOR IBM-7090

D2-90418-6 SPARES
ELECTRON TRANSMISSION
BY BOEING STAFF MEMBERS
FORTRAN FOR IBM-7090

D2-90684-1 APRIL 1965 SPARES
SLIDES USED IN SYMPOSIUM ON SPACE RADIATION ENVIRONMENT AND SHIELDING CODES

DC - SEE XDC

DEPP/SEPP SEE CEN/FAR

DP - SAVANNAH RIVER LABORATORY
AIKEN, SOUTH CAROLINA
(OPERATED FOR USAEC BY E. I. DUPONT DE NEMOURS AND CO.)

DP-834 - UNCLE IV
AXIAL UNCLE
TWO FORTRAN CODES (IBM-704) TO OBTAIN 1-DIM. SOLUTIONS OF THE STEADY-STATE NEUTRON-DIFFUSION EQUATION IN A CYLINDRICAL REACTOR (APPENDIX)

DP-938 MAY 1965 3D-HEXLAX
A COMPUTER CODE FOR ONE-GROUP FLUX CALCULATIONS IN THREE DIMENSIONS
BY J. C. ENGLISH
FORTRAN FOR IBM-704

DP-1027 MARCH 1966 HERESY I
HETEROGENEOUS REACTOR SYSTEMS CODE FOR THE IBM 704
BY D. R. FINCH
FORTRAN II FOR IBM-704

DP-IAEA-TR-20 FEBRUARY 1963 BSQ
AN IBM-704 CODE TO CALCULATE HEAVY WATER LATTICE PARAMETERS
BY F. E. DRIGGERS
FORTRAN

DP-REPORT-NO. DRAGON PROJECT REPORTS
SEE AEEW

DTMB - DAVID TAYLOR MODEL BASIN
APPLIED MATHEMATICS LABORATORY
WASHINGTON, D. C.

DTMB-1820 JULY 1965 TET 2
A THERMAL ENERGY TRANSPORT CODE
BY CHARLES DAWSON AND PHILIP E. BATTEY
FORTRAN FOR IBM 7090

EAD - AEROJET-GENERAL NUCLEONICS
SAN RAMON, CALIFORNIA

EAD-103 DECEMBER 1963 FAIL
FALLOUT AREA INTENSITY LEVELS CODE
BY J. K. WITTHAUS
FORTRAN FOR IBM-7090 AND -7094

EAD-119 FEBRUARY 1964 G-33
(AN-COMP-196)
G-33, CODE FOR COMPUTING GAMMA RAY SCATTERING
BY G. H. ANNO AND J. K. WITTHAUS
FORTRAN FOR IBM-7090, 7094

EAD-143 MARCH 1964 QAD-PR
(AN-COMP-197)
A PROGRAM USED TO COMPUTE FAST NEUTRON AND GAMMA RAY
PENETRATION THROUGH SHIELDING ASSEMBLIES AND MATERIALS
BY J. K. WITTHAUS
FORTRAN FOR IBM-7090 AND 7094

ENEA SEE EUR

ER - LOCKHEED-GEORGIA COMPANY
MARIETTA, GEORGIA

ER-6643 JANUARY 1964 LPPC
LEBC
MSGAM
COMPUTER PROGRAMS FOR SHIELDING PROBLEMS IN MANNED SPACE VEHICLES
BY C. W. HILL, C. C. DOUGLAS, JR., W. B. RITCHIE AND K. M. SIMPSON, JR.
FORTRAN, IBM-7090, -7094

ER-6906 MAY 1964 FPIC
A FISSION PRODUCT INVENTORY CODE
BY K. O. KOEBBERLING, W. E. KRULL, AND J. H. WILSON
FORTRAN FOR IBM-7090 AND 7094

ER-7777 (VOL. I) AUGUST 1965 LRSPC
DATA COMPILATION AND EVALUATION OF SPACE SHIELDING PROBLEMS, VOL. I, RANGE AND STOPPING POWER DATA
BY C. W. HILL, W. B. RITCHIE AND K. M. SIMPSON, JR.
FORTRAN, IBM-7090, -7094

ER-7777 (VOL. II) AUGUST 1965 LMFC
SVDC
DATA COMPILATION AND EVALUATION OF SPACE SHIELDING PROBLEMS, VOL. II, DOSE CALCULATIONS IN SPACE VEHICLES
BY C. W. HILL, W. B. RITCHIE, AND K. M. SIMPSON, JR.
FORTRAN AND FAP, IBM-7090, -7094

ER-7777 (VOL. III) APRIL 1966 FLARE
DOSE-MOD.
DATA COMPILATION AND EVALUATION OF SPACE SHIELDING PROBLEMS - VOL. III RADIATION HAZARDS IN SPACE
BY C. W. HILL, W. B. RITCHIE, AND K. M. SIMPSON, JR.
FORTRAN IV, IBM 7094 AND 360/50 (FLARE)
FORTRAN II AND FAP, IBM 7094 (DOSE-MOD.)

EUR - EURATOM - EUROPEAN ATOMIC ENERGY COMMUNITY
ISPRA ESTABLISHMENT, ITALY

EUR-2103.E (MF) 1964 COSTANZA
A NUMERICAL CODE FOR THE STUDY OF THE REACTOR SPATIAL DYNAMICS IN TWO GROUPS
BY E. VINCENTI, R. MONTEROSO, AND A. AGAZZI

EUR-2104.E (MF) 1964 COSTANZ
THE CODE COSTANZA
BY A. AGAZZI, E. VINCENT, AND R. MONTEROSSO
FORTRAN II AND CALCOMP FOR IBM 7090

EUR 2152.E 1964 MAC-RAD
A REACTOR SHIELDING CODE--THE REVISED AND DEVELOPED EDITION OF MAC
BY U. CANALI, H. ILSEMANN, C. PONTI, AND H. PREUSCH
FORTRAN FOR IBM-7090

EUR-2162.E (MF) 1964 CRE
AN IBM 7090 CODE FOR THE DETERMINATION OF REACTIVITY CHANGES AND FLUX SHAPE DUE TO CONTROL ROD INSERTICN IN A REACTOR
BY B. DORPEMA, C. MONGINI-TAMAGNINI, AND C. PONTI

EUR-2174.I - VAR
(ENEA ABST. 048)
HOW TO USE THE CODE VAR/1
BY C.E.T.I.S. APPLIED PROGRAMMING SECTION
FORTRAN FOR IBM 7090

EUR-2181.E (MF) 1965 K-7-THERMOS
A STUDY OF CELL PARAMETERS USING THE K-7-THERMOS NEUTRON THERMALIZATION CODE
BY W. A. RAAJMAKERS

EUR 2204.I JANUARY 1965 GAMMONE
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 7090 FORTRAN II CODE FOR THE CALCULATICN OF A NEUTRON SPECTRUM FOR A HETEROGENEOUS LATTICE
BY H. TAKAHASHI AND H. DEWALDE
FORTRAN FOR IBM 7090

EUR-2624.E (MF) NOVEMBER 1965 COLPROB
A ONE-GROUP COLLISION PROBABILITY CODE FOR CYLINDERS AND SLABS
BY B. QUINQUEMELLE
FORTRAN II FOR IBM 7090

EUR-PRIVATE COMMUNICATION APRIL 1966 BIGGI 3P
PROVISORY DESCRIPTION OF THE GAMMA TRANSPORT PROGRAM
BY H. PENKUHN
FORTRAN, IBM 7094

FOA - FORSVARETS FORSKNINGSANSTALT
RESEARCH INSTITUTE OF NATIONAL DEFENSE
STOCKHOLM, SWEDEN

FOA-4 A-4403-411 (MF) 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 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 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 7090

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 GAD CODES
BY C. V. SMITH AND H. A. VIEWEG
IBM 7090

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 7090

GA-5104 (MF) APRIL 1964 TARGET
A PROGRAM FOR A 1000 MW(E) HIGH-TEMPERATURE GAS-COOLED REACTOR -- QUARTERLY REPORT
IBM 7044

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

GA-6096 DECEMBER 1964 HEXSCAT
GASKET
QUARTERLY PROGRESS REPORT FOR THE PERIOD ENDING DECEMBER 31, 1964
BY J. R. BEYSTER, ET AL.

GA-6511 APRIL 1966 GADOSE
DOSET
GADOSE AND DOSET - PROGRAMS TO CALCULATE ENVIRONMENTAL CONSEQUENCES OF RADIOACTIVITY RELEASE
BY E. LEE, R. J. MACK AND D. B. SEDGLEY
FORTRAN FOR IBM 7044

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

GA-7417 SEPTEMBER 1966 GASKET
GASKET - A UNIFIED CODE FOR THERMAL NEUTRON SCATTERING
BY J. U. KOPPEL, J. R. TRIPLETT AND Y. D. NALIBOFF

GAMD-1561(REV.) (MF) MARCH 1963 COPE
CORE PERFORMANCE CODE (COPE CODE)
BY R. KATZ
FORTRAN FOR IBM 7090

GAMD-2610 NOVEMBER 1961 DSN
A NEW VERSION OF DSN
BY J. H. ALEXANDER
IBM 7090

GAMD-2797 MARCH 1962 DDB
DDB - A TWO DIMENSIONAL REACTOR DIFFUSION CODE WITH CRITICALITY 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-6519 (MF) JULY 1965 RAD2
A COMPUTER PROGRAM FOR CALCULATING FISSION PRODUCT RADIO-ACTIVITIES
BY F. E. VANSLAGER
FORTRAN IV

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-6692 SEPTEMBER 1965 GAVER
A NEUTRON CROSS SECTION AVERAGING PROGRAM
BY C. V. SMITH AND M. K. DRAKE
IBM 7044

GAMD-6775 (MF) DECEMBER 1965 MUSCAT
MUSCAT - A FORTRAN IV VIEW FACTOR SHIELDING CODE
BY MARY J. GERBER AND BERNARD W. ROCS
FORTRAN IV FOR IBM 7044

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 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

GNE/PHYS 65-17 (MF) MAY 1965 SAQUISN
GROUP DISCRETE SN TRANSPORT CALCULATION FOR CYLINDRICAL GEOMETRY
BY RONALD M. SAQUI
FORTRAN IV FOR IBM 7094

HW - HANFORD ATOMIC PRODUCTS OPERATION
RICHLAND, WASHINGTON
(SEE ALSO BNWL)

HW-71545 NOVEMBER 1961 HFN
COMPUTER CODE HFN-MULTIGROUP, MULTIREGION NEUTRON DIFFUSION THEORY IN ONE SPACE DIMENSION
BY J. R. LILLEY
FORTRAN AND FAP FOR IBM-7090

HW-71545 REV. JULY 1962 HFN
COMPUTER CODE HFN-MULTI-GROUP, MULTI-REGION NEUTRON DIFFUSION THEORY IN ONE SPACE DIMENSION (CORRECTIONS)
BY J. R. LILLEY
FORTRAN AND FAP FOR IBM-7090

HW-71984 DECEMBER 1961 ACTICAY
ACTICAY FISSION PRODUCT DECAY PROGRAM
BY D. L. JOHNSON
FORTRAN FOR IBM 7090

HW-73381 APRIL 1962 MAC
MAC - A BULK SHIELDING CODE
BY E. G. PETERSON
IBM 7090

HW-73381 SUP.1 JANUARY 1964 MAC X-SECTS
TWO CROSS SECTION LIBRARIES FOR USE WITH MAC SHIELDING CODE
BY J. GREENBORG

HW-80213 DECEMBER 1963 MATRIX
ACCURATE EIGENVALUE MATRIX TREATMENT OF GENERAL FISSILE INTERACTION
BY F. R. CZERNIEJEWSKI
FORTRAN FOR IBM 7090

HW-80246 (MF) FEBRUARY 1964 MIDAS
A SIMPLIFIED METHOD FOR PROGRAMMING A 7090 COMPUTER FOR SIMULATION OF DYNAMIC SYSTEMS
BY R. D. BENHAM
IBM 7090

HW-80968 (MF) MARCH 1964 HFN
CALX
USERS MANUAL FOR HFN AND CALX CHAIN
BY E. L. KELLEY, JR.
IBM 7090

HW-83577 OCTOBER 1964 ZODIAC2
ZODIAC2 USERS MANUAL
BY D. D. MATSUMOTO AND G. J. BUSSELMAN
FORTRAN FOR IBM 7090

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-84495 REV. NOVEMBER 1964 INTERSET
CHANGES IN THE INTERSET CODE
BY F. R. CZERNIEJEWSKI
FORTRAN FOR IBM 7090

HW-SA-3769 OCTOBER 1964 ISOGEN
RADIONUCLIDE GENERAL CALCULATIONS
BY H. H. VAN TUYL
FORTRAN FOR IBM 7090

IDO - PHILLIPS PETROLEUM
JSAEC, 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. GANNON

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-17125 DECEMBER 1965 WIGLE-40
A TWO-GROUP, TIME-DEPENDENT DIFFUSION THEORY PROGRAM FOR THE IBM 7040 COMPUTER
BY M. E. RADD
FORTRAN FOR IBM 7040

IDO-17151 MAY 1966 RSAC
RSAC - A RADIOLOGICAL SAFETY ANALYSIS COMPUTER PROGRAM
BY R. L. COATES AND N. L. HORTON
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

IDO-28595 DECEMBER 1965 HECTIC-II
(REV. 12-1-65)
AN IBM 7090 FORTRAN COMPUTER PROGRAM FOR HEAT TRANSFER ANALYSIS OF GAS OR LIQUID COOLED REACTOR PASSAGES
BY N. KATTCHEE AND W. C. REYNOLDS
FORTRAN FOR IBM 7090

IEA - INSTITUTO DE ENERGIA ATOMICA
SAO PAULO, BRAZIL

IEA-111 (MF) DECEMBER 1965 FPC
DIGITAL PROGRAM FOR CALCULATION OF ACTIVITIES OF FISSION PRODUCTS OF LONG HALF LIFE
BY MARIA JOSE C. NASTASI AND C. CACERES

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

ISS 66/26 JULY 1966 MSE
A MONTE CARLO COMPUTATION OF MULTIPLE SCATTERING EFFECTS
BY R. BIANCASTELLI AND P. STEIN
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

JAERI-1085 (MF) DECEMBER 1964 NELKER
A CODE FOR SCATTERING KERNEL CALCULATION FOR BOUND
HYDROGEN
BY SYOICHIRO SHIMADA
FORTRAN II FOR IBM 7090

JAERI-1096 (MF) NOVEMBER 1965 ELIESE-I
FORTRAN II PROGRAM FOR ANALYSIS OF ELASTIC AND INELASTIC
SCATTERING CROSS SECTIONS
BY JAPANESE NUCLEAR DATA COMMITTEE
FORTRAN II FOR 7090

JAERI-1105 (MF) MARCH 1966 EPSILON
AN IBM-7090 CODE FOR COMPUTING FAST FISSION EFFECTS IN
LATTICE BY COLLISION PROBABILITY METHOD
BY ICHIRO KOMATSU AND YUZO FUKAI
IBM 7090

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-2039 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
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 PROBABILITIES
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-6420 (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-6430 (MF) NOVEMBER 1964 OSCAR
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

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

KAPL-M-GES-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

KCA - SEE UCC

KR - INSTITUTT FOR ATOMENERGI
KJELLER RESEARCH ESTABLISHMENT
KJELLER, NORWAY

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

KR-101 FEBRUARY 1965 K-7 THERMOS
THE FORTRAN VERSION OF THE NEUTRON THERMALIZATION CODE K-7 THERMOS FOR THE CDC-3600 COMPUTER
BY R. J. J. STAMMLER
FORTRAN FOR CDC-3600

KR-111 (MF) JUNE 1966 MAGNA
MAGNA - A MULTI-SOURCE GAMMA SHIELDING PROGRAMME
BY ULF TVETEN
FORTRAN 3600 FOR CDC 3600

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

LA-3427-MS JUNE 1965 DPC
A TWO-DIMENSIONAL DATA PREPARATION CODE
BY W. H. HANNUM AND B. M. CARMICHAEL
FORTRAN II FOR IBM 7094

LA-3530-MS JULY 1966 PROMCET
PROGRAMS DESIGNED FOR PROCESSING MONTE CARLO EVENTS TAPES
BY J. ROBERT STREETMAN
FORTRAN FOR IBM 7094

LA-3573 APRIL 1967 QAD
QAD- A SERIES OF POINT-KERNEL GENERAL-PURPOSE SHIELDING PROGRAMS
BY RICHARD E. MALENFANT
FORTRAN FOR IBM 7090/7094

LA-DC-5663 (MF) 1964 DPC
A TWO-DIMENSIONAL DATA PREPARATION CODE
BY B. M. CARMICHAEL AND W. H. HANNUM
FORTRAN FOR IBM 7090/7094

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

ML - AIR FORCE MATERIALS LABORATORY
RESEARCH AND TECHNOLOGY DIVISION
AIR FORCE SYSTEMS COMMAND
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

ML-TDR-64-52 APRIL 1964 FANTASIA II
TRIPOD II
FANTASIA II AND TRIPOD II - SHIELDING CODES FOR THE IBM 7090
BY HERBERT A. STEINBERG, J. HEITNER, AND R. ARONSON

MND - MARTIN NUCLEAR DIVISION
BALTIMORE, MARYLAND

MND-3200 MARCH 1965 ALTRAN
AN IBM-7094 TRANSLATOR FOR PHILCO-2000 SERIES CODES
BY T. M. OLSEN
FORTRAN II AND FAP FOR IBM-7094

MND-C-2500-2 MARCH 1962 CELCOR
APWRC-CELCOR, A FORTRAN-II PROGRAM FOR MULTIPLE LETHARGY LEVEL P1 OR DSN CELL CORRECTIONS IN CYLINDRICAL, SPHERICAL AND ONE- OR TWO-DIMENSIONAL SLAB GEOMETRY
BY G. A. CANNON AND T. M. OLSEN

MND-C-2500-3 MAY 1962 SYNFAR-02
APWRC-SYNFAR-02, A P1 AND DSN THEORY FORTRAN-II CODE FOR STATIC AND DYNAMIC SYNTHESIS OF TWO-DIMENSIONAL FLUX AND REACTIVITY
BY T. M. OLSEN

MND-C-2500-4 JUNE 1962 SYBURN
APWRC-SYBURN, A FORTRAN-II PROGRAM FOR SYNTHESIZED TWO-DIMENSIONAL P1 OR DSN BURNUP CALCULATIONS
BY E. A. COLBETH AND T. M. OLSEN

MND-C-2500-5 JUNE 1962 GAMICC
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. OLSEN

MND-C-2500-6 JUNE 1962 APWRC X-SECT
A PROGRAM AND CROSS-SECTION LIBRARY TAPE SYSTEM FOR THE ARMY PRESSURIZED WATER REACTOR CODE
BY T. M. OLSEN

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 CEPTR
CEPTR - 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
DOSE
THUNDERHEAD
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-9190 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-11821 MAY 1966 SPACE
SPACE-TIME FLUX SYNTHESIS METHODS FOR THE APPROXIMATE SOLUTION OF TIME-DEPENDENT BOLTZMANN NEUTRON TRANSPORT EQUATION
BY V. LUCO

NAA-SR-11831 MAY 1966 DTF-II
THE DTF-II SHIELDING DATA LIBRARY
BY W. B. GREEN
FORTRAN II FOR IBM 7090

NAA-SR-11980 (VOL. VI) JUNE 1966 UNICORN
UNICORN - A PROGRAM TO CALCULATE POINT CROSS SECTIONS FROM RESONANCE PARAMETERS
BY J. M. OTTER
FORTRAN IV FOR IBM 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-7347 APRIL 1962 MACE
A MONTE CARLO EVALUATION OF FAST NEUTRON COLLIMATORS
BY R. E. KAISER, W. J. ROBERTS, AND K. L. ROONEY
FORTRAN IBM 7090

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-1A
FARSE-1A A MODIFICATION OF FARSE TO INCLUDE ANGULAR
DEPENDENCE OF SHIELD LEAKAGE
BY K. L. ROONEY

NAA-SR-TDR-8516 REV. MAY 1963 ANNEX 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-60-8T-VOL.I MAY 1960 K-74
(FZK-9-147, VOL. I)
MONTE CARLO CALCULATIONS OF FAST-NEUTRON SCATTERING IN
AIR
BY M. B. WELLS

NARF-60-8T-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 L05
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-62-13T SEPTEMBER 1962 L05
A MONTE CARLO MULTIBEND DUCT PROCEDURE
BY D. G. COLLINS
FAP

NARF-DC MEMO-1.115 DECEMBER 1966 RAID
MONTE CARLO PROCEDURE FOR ANALYSIS OF RADIATION IN DUCTS (RAID)
BY J. A. MOORE, J. B. EGGEN, AND F. O. LEOPARD
FORTRAN IV FOR CDC-6600

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 RADIATION 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-200-5A 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-200-5A SUPP JUNE 1965 SPARC (P09)
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-200-5B 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 709C

FZK-200-5B 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 709C

FZK-200-5C 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 709C

FZK-200-5C 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 CALCULATION
BY J. R. STOKES AND J. L. HUNTER
FORTRAN II FOR IBM 709C AND 7C94

FZK-234 SUPP JUNE 1965 SPARC (E59)
COMPUTER PROCEDURE. SLAB PENETRATION AND REFLECTION CALCULATION - PROGRAMMERS MANUAL SUPPLEMENT
BY J. L. HUNTER
FORTRAN II FOR IBM 709C

FZK-235 JUNE 1965 COMBINE (E91)
COMPUTER PROCEDURE. COMBINE TRANSMISSION CALCULATION
BY R. F. FALKENBURY, J. L. HUNTER, AND J. R. STOKES
FORTRAN II FOR IBM 7090

FZK-235 SUPP JUNE 1965 COMBINE (E91)
COMPUTER PROCEDURE. COMBINE TRANSMISSION CALCULATION --
PROGRAMMERS MANUAL SUPPLEMENT
BY J. L. HUNTER
FORTRAN II FOR IBM 7090

NASA 1- NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
WASHINGTON, D.C.

NASA-SP-71 OCTOBER 1964 -
SECOND SYMPOSIUM ON PROTECTION AGAINST RADIATIONS IN SPACE
EDITED BY ARTHUR REETZ, JR.

NASA 2- NASA, GEORGE C. MARSHALL SPACE FLIGHT CENTER
HUNTSVILLE, ALABAMA

NASA TN D-1115 1962 MARTY-N
MARTY-G
NUCLEAR RADIATION TRANSFER AND HEAT DEPOSITION RATES IN
LIQUID HYDROGEN
BY M. O. BURRELL
FORTRAN FOR IBM-7090

NASA 3- NASA MANNED SPACECRAFT CENTER
HOUSTON, TEXAS

NASA MSC PROJECT NO. 3066 MAY 1965 L015
SHIELD THICKNESS CALCULATION PROGRAM (VOL. I. - COMPUTER
PROGRAM USERS MANUAL)
BY C. FORREST MALONE
FORTRAN IV FOR IBM 7094 AND UNIVAC 1107

NASA MSC PROJECT NO. 3208P JANUARY 1966 K009
MSC SOLID ANGLE RADIATION DOSE PROGRAM
BY ALVA C. HARDY
FORTRAN II FOR IBM 7094

NASA 4- NASA LEWIS RESEARCH CENTER
CLEVELAND, OHIO

NASA CR-54904 MARCH 1966 ATHENA
(UNC-5148)
A SYSTEM OF FORTRAN PROGRAMS FOR RADIATION TRANSPORT AND HEATING CALCULATIONS IN COMPLEX REACTOR GEOMETRIES
BY D. SPIELBERG
FORTRAN IV FOR IBM-7094 AND FORTRAN 63 FOR CDC-1604-A

NASA E-3810 APRIL 1967 QADHD
QADHD POINT-KERNEL RADIATION SHIELDING COMPUTER CODE TO EVALUATE PROPELLANT HEATING AND DOSE TO CREW DURING ENGINE OPERATION
BY GERALD P. LAHTI
FORTRAN IV FOR IBM 7090/7094

NASA TM-X-52166 1966 LPSC
THE LEWIS PROTON SHIELDING CODE
BY R. I. HILDEBRAND AND H. E. RENKEL
FORTRAN IV FOR IBM 7094

NASA 5- NASA LANGLEY RESEARCH CENTER
HAMPTON, VIRGINIA

NASA TN D-2659 MARCH 1965 SCOTT
ELECTRON-BREMSSTRAHLUNG DIFFERENTIAL CROSS SECTIONS FOR THIN AND THICK TARGETS
BY W. WAYNE SCOTT
FORTRAN FOR IBM 7094

NASA TN D-3573 AUGUST 1966 TDSN
A FORTRAN IV TWO-DIMENSIONAL DISCRETE ANGULAR SEGMENTATION TRANSPORT PROGRAM
BY CLAYTON E. BARBER
FORTRAN IV

NDA - SEE UNC

NIJS - NUCLEAR INSTITUTE - JOZEF STEFAN
LJUBLJANA, YUGOSLAVIJA

NIJS-R-437 SEPTEMBER 1964 ATENN
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NSL - NORTHROP SPACE LABORATORIES
HAWTHORNE, CALIFORNIA

NSL 63-159 SEPTEMBER 1963 NAVRAC
MODEL ASTRONAUT AND VEHICLE RADIATION ANALYSIS CODE
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DETERMINATION OF PARTICLE FLUXES IMPINGING ON A SPACECRAFT
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NUC - NUCLEAR ENGINEERING DEPARTMENT
PENNSYLVANIA STATE UNIVERSITY
STATE COLLEGE, PENNSYLVANIA

NUC E 11 SEPTEMBER 1962 HISPEC
THE HISPEC MONTE CARLO PROGRAMS
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OCD - OFFICE OF CIVIL DEFENSE
TECHNICAL SERVICES DIRECTORATE
DEPARTMENT OF DEFENSE
WASHINGTON, D. C.

OCD-JD1 JANUARY 1966 CAPS-2
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ORNL - OAK RIDGE NATIONAL LABORATORY
OAK RIDGE, TENNESSEE
(OPERATED FOR THE USAEC BY UNION CARBIDE CORPORATION)

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GENERALIZED HEAT CONDUCTION CODE FOR THE IBM-704 COMPUTER
BY T. B. FOWLER AND E. R. VOLK
FAP FOR THE IBM 704

ORNL-2789 SEPTEMBER 1961 CORNFONE
A MULTIGROUP, MULTIREGION REACTOR CORE
BY W. E. KINNEY AND R. R. COVEYOU
ORACLE

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AN IBM-704 CODE FOR CALCULATING SUCCESSIVE FIRST ORDER REACTIONS
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SAP AND FORTRAN FOR IBM-704

ORNL-3041 MARCH 1966 SDC
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BY E. D. ARNOLD AND B. F. MASKEWITZ
FORTRAN FOR IBM 7090

ORNL-3150 AUGUST 1961 WHIRLAWAY
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ORNL-3198 FEBRUARY 1962 NIGHTMARE
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BY M. L. TOBIAS, D. R. VONDY, AND MARJORIE P. LIETZKE
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THE DISTORTED-WAVE THEORY OF DIRECT NUCLEAR REACTIONS I, ZERO-RANGE FORMALISM WITHOUT SPIN-ORBIT COUPLING, AND THE CODE SALLY
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ORNL-3507 JANUARY 1964 ALBEDO
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BY V. R. CAIN
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A COMPUTER CODE FOR CALCULATING THE COST OF SHIPPING SPENT REACTOR FUELS AS A FUNCTION OF BURNUP, SPECIFIC POWER, COOLING TIME, FUEL COMPOSITION, AND OTHER VARIABLES
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ORNL-3715 NOVEMBER 1964 STATEST
PROGRAM STATEST, AN APPLICATION OF THE METHOD OF STATISTICAL ESTIMATION TO THE CALCULATION OF NEUTRON FLUX IN ANISTROPICALLY SCATTERING MEDIA BY MONTE CARLO
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FORTRAN/FAP

ORNL-3734 MARCH 1965 SANC
NUCLEON-MESON CASCADE CALCULATIONS- TRANSVERSE SHIELDING FOR A 45-GEV ELECTRON ACCELERATOR (PART IV)
BY R. G. ALSMILLER, JR., F. S. ALSMILLER, AND J. BARISH
FORTRAN, IBM-7090

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A GENERALIZED ONE-CONSTRAINT LAGRANGE MULTIPLIER NUMERICAL FORMULATION
BY F. H. S. CLARK AND F. B. K. KAM
FORTRAN FOR CDC-1604

ORNL-3759 MARCH 1965 WIREDAT
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FORTRAN FOR CDC-1604A

ORNL-3805 APRIL 1966 OGRE
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BY S. K. PENNY, D. K. TRUBEY, AND M. B. EMMETT
FORTRAN II AND FAP FOR IBM-7090
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ORNL-3844 MARCH 1966 LEP
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ORNL-3846 1965 XTREME
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ACTIFK, A GENERAL ANALYSIS CODE FOR D5R
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FORTRAN 63 FOR CDC-1604-A AND FORTRAN IV FOR IBM 7090

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BY T. B. FOWLER AND MELVIN TOBIAS

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ORNL-TM-196 DECEMBER 1961 EVAP
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FORTRAN

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OGRE-P2, A MONTE CARLO PROGRAM FOR COMPUTING GAMMA-RAY LEAKAGE FROM LAMINATED SLABS WITH A DISTRIBUTED SOURCE
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FORTRAN/FAP

ORNL-TM-361 AUGUST 1963 NUCY
DEVELOPMENT OF A GENERAL METHOD OF EXPLICIT SOLUTION TO THE NUCLIDE CHAIN EQUATIONS FOR DIGITAL MACHINE CALCULATIONS
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NEUTRON THERMALIZATION PROGRAMS FOR THE IBM 7090
BY C. A. PRESKITT, E. A. NEPHEW, AND M. E. TSAGARIS

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BY M. E. TSAGARIS

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BY E. A. NEPHEW AND C. A. PRESKITT

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FORTRAN FOR IBM-7090

ORNL-TM-847 APRIL 1964 MERC-1
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TRANSIENTS INDUCED BY PULSED NEUTRON SOURCES IN MULTIREGION REACTORS
BY C. A. PRESKITT AND E. A. NEPHEW
FORTRAN FOR IBM-7090

ORNL-TM-1175 AUGUST 1965 05R-BLITZFLUX
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FORTRAN IV FOR IBM 7090

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BY J. T. MIHALCZO, G. W. MORRISON, AND D. IRVING
FORTRAN FOR IBM-7090 AND CDC-1604

ORNL-TM-1212 JANUARY 1966 OGRE-G
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BY D. K. TRUBEY AND M. B. EMMETT
FORTRAN II AND FAP FOR IBM-7090
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FORTRAN, CDC 1604 AND IBM 7090

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FORTRAN II, IBM 7090

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FORTRAN

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ORNL-TM-1325 JANUARY 1966 REACT, CONVRG
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FORTRAN FOR IBM 7090

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FORTRAN FOR IBM 7090 AND CDC-1604

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A PROGRAM TO CALCULATE P(N) MULTIGRCUP SCATTERING MATRICES
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FORTRAN FOR IBM 7090

ORNL-TM-1552 AUGUST 1966 CEASE
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FORTRAN FOR IBM 7090 AND CDC 1604

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FORTRAN FOR IBM 7090 AND IBM 360

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MONTE CARLO METHOD
BY R. PAILLERE
FORTRAN FOR IBM 7090 AND CDC 1604

PWAC - SEE CANEL

RISO - DANISH ATOMIC ENERGY COMMISSION
RESEARCH ESTABLISHMENT RISO
ROSKILDE, DENMARK

RISO 136 JUNE 1966 REMTHERM
PRIGAM
SEGAM I AND II
REMDIFF
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AND SHIELDING CALCULATIONS
BY PETER KIRKEGAARD
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RP - SEE AAEC

RPI - RENSSELAER POLYTECHNIC INSTITUTE
TROY, NEW YORK

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RRA - RADIATION RESEARCH ASSOCIATES, INC.
FORT WORTH, TEXAS

RRA-N45 JULY 1964 RRA-07
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DOSE RATE
BY J. M. NEWELL
FORTRAN IV FOR IBM 7090/7094

RRA-N46 JUNE 1964 RRA-011
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FLUX, DOSE DISTRIBUTION
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FORTRAN II FOR IBM 7090

RRA-T44 MAY 1964 LC5
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BY D. G. COLLINS

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BY L. G. MOONEY
FORTRAN 63 FOR CDC-1604A

RRA-T62-1 SEPTEMBER 1966 COHORT
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FORTRAN IV FOR IBM 7090

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BY D. G. COLLINS AND M. B. WELLS
FORTRAN IV FOR IBM 7090

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RRA-T62-4 SEPTEMBER 1966 COHORT
A MONTE CARLO PROGRAM FOR CALCULATION OF RADIATION HEATING AND TRANSPORT, VOLUME IV, UTILIZATION INSTRUCTIONS FOR A01 AND A02 ANALYSIS ROUTINES
BY D. G. COLLINS AND M. B. WELLS
FORTRAN IV FOR IBM 7090

RTI - RESEARCH TRIANGLE INSTITUTE
DURHAM, NORTH CAROLINA

RTI-RM-205-1 JULY 1965 PF-COMP
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BY E. L. HILL, T. JOHNSON, AND R. O. LYDAY, JR.
FORTRAN 64 FOR CDC 3600

RTI-RM-205-6 JANUARY 1966 PF-COMP
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FORTRAN 64 FOR CDC 3600

SM - MISSILE AND SPACE SYSTEMS DIVISION
DOUGLAS AIRCRAFT COMPANY, INC.
SANTA MONICA, CALIFORNIA

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BY R. H. KARCHER
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TID - TECHNICAL INFORMATION DIVISION
AEC
OAK RIDGE, TENNESSEE

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FINAL REPORT - MONTE CARLO CODES TO INVESTIGATE THE REFLECTION AND TRANSMISSION OF GAMMA RAYS AND NEUTRONS IN HOMOGENEOUS AND HETEROGENEOUS SLABS, VOLUME I. GAMMA RAY CODE
BY DOMINIC J. RASO AND SAMUEL S. HOLLAND
FORTRAN

TO-B 63-82 OCTOBER 1963 TORN
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FORTRAN

TO-B 63-83 OCTOBER 1963 TORG, TORN
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FORTRAN

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

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BY A. HASSITT

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FORTRAN II FOR IBM-7090

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BY A. L. MILLS

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A TWO-GROUP TWO-DIMENSIONAL FUEL CYCLE COMPUTER PROGRAMME SUITABLE FOR ADVANCED GAS-COOLED REACTORS
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FORTRAN II, IBM 7090

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

K-1520 SEPTEMBER 1962 MODRIC
MODRIC, A ONE DIMENSIONAL NEUTRON DIFFUSION CODE FOR THE IBM 7090
BY JAMES REPLOGLE

K-1693 MARCH 1967 ANISN
A USERS MANUAL FOR ANISN
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KDP-168 OCTOBER 1963 GAM-MOD-2
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KOA-1015 JUNE 1962 GAM-MOD
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BY J. L. LUCIUS AND G. E. WHITESIDES

UCRL - LAWRENCE RADIATION LABORATORY
LIVERMORE, CALIFORNIA
(OPERATED FOR THE USAEC BY THE UNIVERSITY OF CALIFORNIA)

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9-ANGIE - A TWO-DIMENSIONAL, MULTIGROUP, NEUTRON-DIFFUSION-THEORY REACTOR CODE FOR THE IBM 709 OR 7090
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BY T. F. WALES AND R. N. STUART

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A CALCULATIONAL METHOD TO DETERMINE GAMMA HEATING IN INFINITE SOURCE MEDIA
BY ALEX LORENZ

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CONEC - A COUPLED NEUTRONIC-ELASTICITY THEORY CODE AND ITS APPLICATION TO PULSED, FAST REACTORS
BY O. C. KOLAR AND NORMAN PRUVOST

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BY ALEX LORENZ
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ABYSS - A NARROW RESONANCE, EPITHERMAL NEUTRON CAPTURE PROBABILITY CODE FOR INFINITE PLANE LATTICES
BY G. M. BENSON AND B. K. CROWLEY

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RHOBURN, A NUCLEAR REACTOR CODE FOR CALCULATING BURNUP AND OPERATIONAL PARAMETERS FOR THE LPTR
BY G. V. PEFLEY, JR.

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SOPHIST-5, AN IBM 7090/7094 FORTRAN II CODE WHICH CALCULATES MULTIGROUP ENERGY TRANSFER MATRICES FOR ANISOTROPIC ELASTIC SCATTERING OF NEUTRONS
BY EUGENE CANFIELD

UCRL-7630 DECEMBER 1963 YOGI-N
YOGI-N - A NEUTRON MONTE CARLO PROGRAM
BY SIMON KELLMAN AND JOSEPH PETTIBONE
IBM 7090

UCRL-10980 (REV.) JULY 1964 ASTROS
PRIMARY AND SECONDARY PROTON DOSE RATES IN SPHERES AND SLABS OF TISSUE
BY R. WALLACE, P. G. STEWARD, AND C. SONDHAUS
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UCRL-11647 SEPTEMBER 1964 RANGE
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BY W. PETER TROWER

UCRL-11647 REV. SEPTEMBER 1966 RANGE
FORTRAN SUBROUTINE RANGE - CALCULATING THE RANGE-ENERGY RELATION FOR CHARGED PARTICLES IN CHEMICAL ELEMENTS
BY W. PETER TROWER

UCRL-11650 (MF) SEPTEMBER 1964 KINE
FORTRAN PROGRAM KINE -- CALCULATING KINEMATICAL AND DYNAMICAL QUANTITIES FOR PARTICLE INTERACTIONS AND DECAYS
BY W. PETER TROWER

UCRL-12005 AUGUST 1964 YOGI-G
YOGI-G- A GAMMA-RAY MONTE CARLO PROGRAM
BY SIMON KELLMAN
FORTRAN II FOR IBM 7090 AND 7094

UCRL-14165 MAY 1965 FOTRAC
A MONTE CARLO PHOTON TRACING COMPUTER PROGRAM
BY NAN DAVIES AND JOHN TERRALL
FORTRAN FOR IBM 7090

UCRL-16154 MAY 1965 ASTROS
RESULTS OF COMPUTATIONS OF DEPTH DOSE IN TISSUE IRRADIATED BY PROTONS
BY P. G. STEWARD
IBM 7090/94

UCRL CROSS SECTIONS SEPTEMBER 1963 MESNE
MESNE, A CROSS SECTION AVERAGING CODE
BY WALTER ARON

UMNE - DEPARTMENT OF CHEMICAL ENGINEERING
UNIVERSITY OF MARYLAND
COLLEGE PARK, MARYLAND

UMNE-2 JUNE 1962 DDA
(TID-17014)
INTERIM REPORT ON SCATTERING OF GAMMAS THROUGH DUCTS
BY C. PARK, C. AGNIHOTRI, AND J. SILVERMAN
FORTRAN FOR IBM 1620

UNC - UNITED NUCLEAR CORPORATION
WHITE PLAINS, NEW YORK

ARL TECH. RPT. 60-314 DECEMBER 1960 NIOBE
A PROGRAM FOR THE NUMERICAL INTEGRATION OF THE BOLTZMANN TRANSPORT EQUATION
BY S. PREISER, G. RABINOWITZ, AND E. DEDUFOUR

NDA-15C-87 DECEMBER 1955 NUPAK
OPERATING INSTRUCTIONS FOR NUPAK
BY J. CERTAINE AND M. SULLIVAN
SAP, IBM 704

NDA-2120-3 DECEMBER 1959 RENUPAK
RENUPAK - AN IBM-704 PROGRAM FOR NEUTRON MOMENT CALCULATIONS
BY J. CERTAINE, E. DEDUFOUR, AND G. RABINOWITZ

NDA 2143-18 AUGUST 1961 NIOBE
MILITARY COMPACT REACTOR PROGRAM - DESCRIPTION OF INPUT PREPARATION AND OPERATING PROCEDURES FOR 9-NIOBE, AN IBM-7090 CODE
BY D. YETMAN, B. EISENMAN, AND G. RABINOWITZ

UNC-5031 AUGUST 1962 NAGTRAN
A DESCRIPTION OF AN IBM-7090 MONTE CARLO PROGRAM FOR THE SOLUTION OF THE TIME DEPENDENT NEUTRON AND GAMMA TRANSPORT PROBLEMS IN AN ATMOSPHERE WITH DENSITY DEPENDENT ON HEIGHT
BY C. MAROTTA AND W. GUBER

UNC-5043 NOVEMBER 1962 HANGER
AN IBM-7090 MONTE CARLO PROGRAM TO CALCULATE NEUTRON TRANSPORT IN CYLINDRICALLY SYMMETRIC SHIELDS WITH PARTICULAR EMPHASIS ON NEUTRON HEATING IN LIQUID HYDROGEN
BY G. RABINOWITZ, F. MALMBORG, AND M. SHAPIRO

UNC-5093 AUGUST 1964 UNC-SAM
UNC-SAM A FORTRAN MONTE CARLO SYSTEM FOR THE EVALUATION OF NEUTRON OR GAMMA-RAY TRANSPORT IN THREE-DIMENSIONAL GEOMETRY
BY B. EISENMANN AND F. R. NAKACHE
FORTRAN FOR CDC-1604-A

UNC-5148 MARCH 1966 ATHENA
ATHENA - A SYSTEM OF FORTRAN PROGRAMS FOR RADIATION TRANSPORT AND HEATING CALCULATIONS IN COMPLEX REACTOR GEOMETRIES
BY D. SPIELBERG
FORTRAN IV FOR IBM 7094 AND FORTRAN 63 FOR CDC 1604-A

UNC-5151 JUNE 1966 AIRTRANS
AIRTRANS - A TIME-DEPENDENT MONTE CARLO SYSTEM FOR RADIATION TRANSPORT IN A VARIABLE DENSITY ATMOSPHERE
BY M. O. COHEN
FORTRAN

UNC PHYS/MATH-3321 NOVEMBER 1963 DTF
DTF USERS MANUAL - VOLUME I
BY WALTER GUBER, MARTIN SHAPIRO (UNC), AND BENGT G. CARLSON, WILLIAM J. WORLTON (LASL)

UNUCOR-631 MARCH 1963 NIOBE
ADVANCED SHIELD CALCULATIONAL TECHNIQUES, VOLUME I
BY D. YETMAN, B. EISENMAN, AND G. RABINOWITZ

UNUCOR-632 MARCH 1963 NIOBE
ADVANCED SHIELD CALCULATIONAL TECHNIQUES, VOLUME II
BY S. PREISER, G. RABINOWITZ, AND E. DEDUFOUR

UNUCOR-633 MARCH 1963 SANE, SAGE
ADVANCED SHIELD CALCULATIONAL TECHNIQUES, VOLUME III
BY WALTER GUBER AND MARTIN SHAPIRO
FORTRAN/FAP

UNUCOR-634 MARCH 1963 SANE, SAGE
ADVANCED SHIELD CALCULATIONAL TECHNIQUES, VOLUME IV
BY MORTON R. FLEISHMAN

UNUCOR-635 MARCH 1963 ADONIS
ADVANCED SHIELD CALCULATIONAL TECHNIQUES, VOLUME V
BY BURTON EISENMAN AND ELINOR HENNESSY
IBM 7090 AND CDC 1604

UNUCOR- SEE UNC

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

USNCEL-TR-379 JUNE 1965 UNIGECM 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-67-9 JANUARY 1967 MCMGEN
MCMDIS
A MOMENTS METHOD COMPUTER CODE FOR RECONSTRUCTING
SCATTERED GAMMA RAY DISTRIBUTIONS
BY C. V. SMITH
FORTRAN II FOR IBM 704

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

USNRDL-TR-921 OCTOBER 1965 FPA
A COMPUTER PROGRAM FOR CALCULATING FISSION PRODUCT
ABUNDANCES
BY M. A. HOGAN, J. K. CRAWFORD, AND V. GODDARD
FORTRAN FOR IBM 7090

USNRDL-TR-1038 MAY 1966 MCNACC
MONTE CARLO TECHNIQUE APPLIED TO THE CALCULATION OF GAMMA-
RAY TRANSPORT IN COMPARTMENTED STRUCTURES
BY L. G. HAGGMARK
FORTRAN II FOR IBM 704

USNRDL-TR-1079 SEPTEMBER 1966 PCBS
A COMPUTER CODE FOR ESTIMATING THE PROTECTION OFFERED BY
SHIPS AGAINST FALLOUT, BASE SURGE, OR WATER POOL RADIATION
BY J. M. FERGUSON
FORTRAN II

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

WADC-TR-58-383 APRIL 1958 TRIG-I
TRANSMISSION MATRIX AND MONTE CARLO GAMMA RAY PENETRATION
BY RAPHAEL ARONSON
IBM 704

WADC-TR-59-443 SEPTEMBER 1960 FANTASIA,
TRIPOD
FANTASIA AND TRIPOD - SHIELDING CODES FOR THE 1103A
UNIVAC
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-TME-941 AUGUST 1964 SSDM
PROGRESS ON AN AUTOMATED RADIATION ANALYSIS PROGRAM
BY H. C. WOODSUM
FORTRAN FOR IBM 7090/7094

WANL-TNR-063 SEPTEMBER 1962 ACT I
ACTIVATION SOURCE STRENGTH PROGRAM
BY P. C. HEISER AND L. O. RICKS
FORTRAN II FOR IBM-7090

WANL-TNR-063-ADDENDUM - ACT II
AN ADDENDUM TO ACTIVATION SOURCE STRENGTH PROGRAM
BY P. C. HEISER AND L. O. RICKS
FORTRAN

WANL-TNR-133 (MF) SEPTEMBER 1963 VARI-QUIR
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

WAPD-T-1734 (MF) JULY 1964 CORSAMP
THE USE OF CORRELATED SAMPLING IN MONTE CARLO CALCULATION OF CHANGES IN THERMAL ABSORPTION
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-54 JANUARY 1957 POLYPHEMUS
POLYPHEMUS - A MONTE CARLO STUDY OF NEUTRON PENETRATIONS THROUGH FINITE WATER SLABS
BY F. OBENSHAIN, A. EDDY, AND H. KUEHN
FAP, IBM 704

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. F. JARVIS

WAPD-TM-135 JULY 1959 PIMG
PIMG - A ONE-DIMENSIONAL MULTIGROUP P1 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
BY J. E. MEYER, R. B. SMITH, H. G. GELBARD, D. E. GEORGE, AND W. D. PETERSON

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

WAPD-TM-208 JANUARY 1961 BRIC
AN IBM-704 TWO-DIMENSIONAL NUCLEAR-THERMAL DEPLETION PROGRAM WITH DISTRIBUTED VOID EFFECTS
BY W. M. JACOBI, T. J. LAWTON, S. H. MEANOR, AND J. R. PARRETTE
FORTRAN FOR IBM-704

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 F. 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. HEMPHILL, 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 M0086
A FORTRAN CODE FOR GAMMA PENETRATION IN A FINITE SLAB
BY B. D. OREILLY

WAPD-TM-315 APRIL 1962 M0150
M0150 - A FORTRAN PROGRAM TO SOLVE THE DOUBLE P-3 EQUATIONS IN SLAB GEOMETRY
BY R. M. CANTWELL

WAPD-TM-320 APRIL 1962 M0176
M0176 - A FORTRAN PROGRAM TO SOLVE SEVERAL P-APPROXIMATIONS 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 M0322, M0332
FORTRAN PROGRAMS FOR CALCULATING NEUTRON ABSORPTION IN SPHERES DISTRIBUTED RANDOMLY
BY R. M. CANTWELL
IBM-7090

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 1 - 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-424 (MF) APRIL 1966 SPARK
A FORTRAN IV DIGITAL PROGRAM FOR SUB-POWER ANALYSIS OF REACTOR KINETIC TRANSIENTS
BY W. G. CLARKE
FORTRAN IV FOR PHILCO 2000 MODEL 212

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 EIPTHERMAL 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 TXYO1
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-1 A FORTRAN PROGRAM FOR STORAGE OF EVALUATED NUCLEAR DATA
BY D. R. HARRIS, A. V. VOTA, G. E. MORRIS, C. B. NOLL, AND H. BOHL, JR.
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
FORTRAN FOR PHILCO 2000

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-6058 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-6058 TEMPORARY ERRATA JUNE 1964 CNCR-2

WCAP-6059 MARCH 1964 TUREC
TURBO - A TWO DIMENSIONAL FEW-GROUP DEPLETION CODE FOR THE IBM-7090
BY S. M. HENDLEY AND R. A. MANGAN

WCAP-6073 APRIL 1966 LASER
A DEPLETION PROGRAM FOR LATTICE CALCULATIONS BASED ON
MUFT AND THERMOS
BY C. G. PONCELET
FORTRAN IV FOR IBM 7090 AND 7094

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
FORTRAN/CODAP

WL-TDR-64-46, VOL. II 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
FORTRAN/CODAP

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. DOHERTY,
G. L. KEISTER, B. W. MAR, K. MORIYASU, W. R. SHELDON,
J. R. THOMAS, AND M. C. WILKINSON

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

APEX-404 AUGUST 1958 12-0
SHIELDING COMPUTER PROGRAM 12-0, GAMMA RAY PENETRATION
POINT SOURCE
BY W. E. EDWARDS AND J. J. LOECHLER
IBM-704

APEX-503 MARCH 1958 10-0
AIRCRAFT NUCLEAR PROPULSION SHIELDING PROGRAM 10-0
BY J. W. HAFFNER, J. J. LOECHLER, AND J. E. MACDONALD
IBM 704

APEX-533 DECEMBER 1958 09-0
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-605 APRIL 1961 20-7
SHIELD REGION DATA CONVERTER PROGRAM 20-7
BY J. M. MARTIN

APEX-608 APRIL 1961 FN-GAMMA
MULTIGROUP, MULTIREGION, ONE-SPACE-DIMENSION PHOTON-DIFFUSION THEORY CALCULATION - PROGRAM FN-GAMMA
BY MARY S. FERRY
IBM-7090

APEX-610 MAY 1961 20-0
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, FLOCC V FIELD-TEST FORMULATION
BY B. H. DUANE

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

APEX-704 NOVEMBER 1961 -
REACTOR NEUTRON CROSS SECTIONS IN FINE ENERGY DETAIL
BY J. R. COOPER, R. E. SULLIVAN AND W. B. HENDERSON

APEX-706 APRIL 1961 FMC-N, -G
FLEXIBLE MONTE CARLO PROGRAMS FMC-N AND FMC-G
BY J. J. LOECHLER AND J. E. MACDONALD
FAP

DC+60-10-150 OCTOBER 1960 15-1
DETERMINATION OF SUITABLE PARAMETERS FOR COMPILING GAMMA RAY AIR SCATTERING PROBABILITIES
BY M. A. CAPO
FORTRAN FOR IBM 7090

GEMP-102 OCTOBER 1961 18-0
SPECIALIZED REACTOR-SHIELD MONTE CARLO PROGRAM 18-0
BY J. E. MACDONALD, J. T. MARTIN, AND J. P. YALCH
FAP

GEMP-113 JUNE 1962 20-2
PROGRAM 20-2, 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 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
FORTRAN

GEMP-116 JUNE 1962 20-5
PROGRAM 20-5, 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 20-6, A PROGRAM FOR COMPUTING NUCLEAR EXCITATION AND TRANSITION PROBABILITIES FROM MEASURED GAMMA RAY INTENSITIES
BY J. P. YALCH AND J. E. MACDONALD
FORTRAN

GEMP-123 JULY 1962 20-8
PROGRAM 20-8, 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

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