

TRANSPORT COMPUTATIONS

Monday AM

Diffusion Synthetic Acceleration of SN Linear Nodal Schemes in Weighted Difference Form

Zmijarevic, Igor

Sanchez, Richard

Lamponi, Daniele

Fully Consistent, Linear Discontinuous Diffusion Synthetic Acceleration on 3D Unstructured Meshes

Warsa, James S.

Wareing, Todd A.

Morel, Jim E.

Development of New Quadrature Sets with the "Ordinate Splitting" Technique

Longoni, Gianluca

Haghighat, Alireza

Analysis ANS LWR Physics Benchmark Problems by SH and SPS Methods

Laletin, N.I.

Sultanov, N.V.

Kovalishin, A.A.

APPLICATIONS AND ADVANCES IN MCNP™

Monday AM

Superimposed Mesh Plotting in MCNP

Hendricks, John S.

Coupling MCNP and a Depletion Code for Detailed Neutronic Analysis and Optimum Core Management at the German FRJ-2 Research Reactor

Nabbi, R.

Wolters, J.

An Interactive 3D Display of MCNP Geometry Models

Van Ripper, Kenneth

Application of an Advanced MCNP Technique to Analysis of Nuclear Characteristics in Reactor Core

Han, Chi Young

Shin, Chang Ho

Kim, Jong Kyung

Park, Won Seok

TRANSPORT COMPUTATIONS

Monday PM

Finite Element Solutions of Second-Order Forms of the Transport Equation at the Interface Between Diffusive and Non-Diffusive Regions

Gesh, Christopher J.

Adams, Marvin L.

Additive Angular Dependent Rebalance Acceleration of the Discrete Ordinates Transport Calculations

Park, Chang Je

Cho, Nam Zin

An Acceleration Scheme for Binary Stochastic Mixture Deterministic Transport Equations in Slab Geometry

Ching, Brenton S.

Palmer, Todd S.

An Algorithm for Parallel SN Sweeps on Unstructured Meshes

Pautz, Shawn D.

Verification of Transport Codes by the Method of Manufactured Solutions: The ATTILA Experience

Pautz, Shawn D.

Spatial Treatment of the Slab-Geometry Discrete Ordinates Equations Using Artificial Neural Networks

Brantley, Patrick S.

Criticality Calculations of Prospero Reactor

Aussourd, Christian

THERMAL-HYDRAULIC/NEUTRONIC COUPLED CODE ANALYSIS METHODS

Monday PM

Coupled 3-D Reactor Kinetics and Thermal-Hydraulics Analysis for SLB Accident of an Operating Nuclear Power Plant by Using the RELAP5/PARCS System

Yang, C.

Jang, C.

Jung, J.

Jeong, H.

Bang, Y.

Kim, H.

Determination of the Uncertainties of the Constitutive Relationships of the CATHARE 2 Code

de Creey, Agnes

Uncontrolled Rod Bank Withdrawal Benchmark Analysis with CORETRAN and RETRAN-3D

Ferroukhi, Hakim

Coddington, Paul

Investigation of Modeling Aspects for Coupled Code Applications in Safety Analysis

Langenbuch, S.

Schmidt, K.-D.-

Velkov, K.

Temporal Adaptive Algorithm for Synchronization and Optimization of the Performance of Multi-Level Coupled Calculations

Solis, Jorge

Ivanov, Kostadin N.

On Some Modifications of the Point Reactor Kinetics Equations

Abramov, Boris D.

Technique of Uncertainties Estimation in Modeling of Slow Transient Processes in Nuclear Reactors

Ivanov, Evgueni

TRANSPORT METHODS

Tuesday AM

Error Analysis of Variations on Larsen's Benchmark Problem

Azmy, Y.Y.

Discrete Ordinates Albedo Boundary Conditions for One-Speed Eigenvalue Problems in X,Y Geometry

Filho, Hermes Alves

Barros, Ricardo C.

Two Dimensional Time Dependent Riemann Solvers for Neutron Transport

Brunner, Thomas A.

Holloway, James Paul

Spatial Adaptivity Applied to the Variational Nodal Pn Equations

Zhang, Hui

Lewis, E.E.

Infinite Medium Solutions of the Transport Equation, Discretization Schemes, and the Diffusion Approximation

Larsen, Edward W.

Complete First-Order Boundary Condition Perturbation Theory for the Neutron Transport Equation

McKinley, Michael Sc

Rahnema, Farzad

ADVANCES IN NODAL METHODS

Tuesday AM

A Three Grid Correction Scheme for Transient Nonlinear Nodal Calculations

Chung, Ku Young

Kim, Chang Hyo

Unified Nodal Method for Solution to the Space-Time Kinetics Problems

Lee, Hyun Chul

Kim, Chang Hyo

Mixed Dual Finite Element Methods for the Treatment of Hexagonal Geometries in Diffusion Equations

Schneider, Didier

Lautard, Jean-Jacque

Development of a Polynomial Nodal Model for the Multi-group Diffusion Equation in 2-D

Shojaei, A.

Khorsandi, J.

Hexagonal CMFD Formulation Employing Triangle-Based Polynomial Expansion Nodal Kernel

Cho, Jin Young

Joo, Han Gyu

Cho, Byung-Oh

Zee, Sung Quun

Numerical Instability of Neutron Diffusion Finite-Difference Equations

Hashimoto, Kengo

Ikeda, Hideaki

Takeda, Toshikaz

REACTOR KINETICS

Tuesday AM

Multipoint Methods in Nuclear Reactor Kinetics

Bosio, P.

Ravetto, P.

Rostagno, M.M.

Barzilov, A

Neutron Kinetics via Numerical Laplace Transform Inversion

Ganapol, B.D.

Furfaro, R.

Development and Validation of a Methodology for Neutron Dynamics Analysis of RBMK Reactors

Jasiulevicius, A.

Kubarev, A.

Sehgal, B.R

STABILITY ANALYSIS

Tuesday AM

Some Remarks on Time Series Analysis for BWR Stability Studies

Askari, B.

Behringer, K.

Henning, D.

Time-Domain BWR Stability Analysis with SKETCH-INS/TRAC-BF1, Validation against OECD/NEA Ringhals 1 Stability Benchmark

Utsuno, Hideaki

Yamada, Hiroshi

Nishio, Masahide

Suzuki, Katsuo

2-D 2-Group Neutron Noise Simulator and its Application to Anomaly Localisation

Demaziere, C.

Pazsit, I.

TRANSPORT METHODS

Tuesday PM

A Coarse Mesh Transport Method for Heterogeneous Systems

Ilas, Dan

Rahnema, Farzad

Symmetrization of the Transport Operator and Lanczos' Iterations

Sanchez, Richard

Santandrea, Simone

Single Ray Streaming Behaviour for Discontinuous Finite Element Spatial Discretisations

Smedley-Stevenson, R.

Arbitrarily High Order Transport Method of the Characteristic Type for Tetrahedral Grids

Azmy, Y.Y.

Barnett, D.A.

Homogeneous Infinite Media Time-Dependent Analytical Benchmarks

Ganapol, B.D.

Baker, R.S.

Dahl, J.A.

A Parallel Multigrid Method for Inversion of the Diffusion Operator in Neutronics Applications

Alcouffe, Raymond E.

On Some Modifications of the Marchuk's Multigroup Method

Abramov, Boris D.

ADVANCES IN NODAL METHODS

Tuesday PM

Multigroup Transient Calculation within the Framework of a Two-Group Hexagonal CMFD Formulation

Joo, Han Gyu

Cho, Jin Young

Song, Jae Seung

Zee, Sung Quun

Adaptive Mesh Refinement for the Time-Dependent Nodal Integral Method

Toreja, A.

Rizwan-Uddin

A Primitive-Variable Nodal Method for the Time-Dependent Navier-Stokes Equations

Michael, E.P.E.

Dorning, J.

Studies on Nodal Methods for the Time-Dependent Convection-Diffusion Equation

Michael, E.P.E.

Dorning, J.

Nonlinear Unified Nodal Method Formulation for Analytic Function Expansion Modal Method Solutions to Two-Group Diffusion Equation

Lee, Hyun Chul

Kim, Chang Hyo

A Nodal Integral Method for the Dissipative Shallow-Water Equations with Coriolis Force

Mays, Brian E.

Dorning, J.

ADVANCED METHODS FOR DATA ANALYSIS

Tuesday PM

Application of Rapid Numerical Phantom Reconstruction and Monte Carlo Calculation for Calibration of IN VIVO Measurement Systems

Borisov, N.

Franck, D.

Laval, L.

Field Reconstruction from Measured Values using Symmetries

Makai, Mihaly

Temesvari, Emese

Orechwa, Yuri

Nonelastic Effects on the Fast Neutron Spectrum in Pb-208

Holloway, James Paul

Statistical Analysis of Overdispersion in Nuclear Counting Distributions

Semkow, Thomas M.

**Detection of Single Isotopes in Composite Gamma Ray Spectrum:
An Application of Wavelet Theory to Gamma Ray Spectra Analysis**

Velasquez, E.

Bosworth, E.

**Computational Experience with the Reich-Moore Resolved-Resonance Equations
in the AMPX Cross-Section Processing System**

Dunn, M. E.

MONTE CARLO METHODS

Wednesday AM

A "SEMI-ANALOG" Monte Carlo Method for Grey Radiative Transfer Problems

Ahrens, Cory

Larsen, Edward W.

Variational Variance Reduction for Monte Carlo Criticality Problems

Densmore,, Jeffery D

Larsen, Edward W.

Second-Order Cross Terms in Monte Carlo Differential Operator Perturbation Estimates

Favorite, Jeffrey

Parsons, D. Kent

The Monte Carlo Midway Method with Multiple Midway Surfaces

Hoogenboom, J. Eduard

Universal Approach for ADS Blanket Calculations by Monte Carlo Method

Korobeinikov, Valeri

REACTOR ANALYSIS METHODS

Wednesday AM

HOR: Transition (HEU-LEU) Core Follow Comparisons Between Different Computer Codes and Plant Data

de Leege, P.F.A.

Gibcus, H.P.M.

Reitsma, F.

Fuel Cycle Analysis Methods for Advanced Reactor Concepts

Kim, T.K.

Xu, Yunlin

Tinkler, Dan

Downar, T.J.

Lattice Parameters Generation using Bi-Cubic Interpolation

Castillo, Jose A.

Alonso, Gustavo

del Valle, Edmundo

On the Assessment of Reactivity Effects Due to Localised Perturbations in BWR Lattices

van Geemert, R.

Jatuff, F.

Grimm, P.

Chawla, R.

Development and Verification of an Alternative Formulation for Dynamic Reactivity Measurement of Rod Worth

Ariani, Imelda

Turinsky, Paul J.

Kastanya, Doddy Y.F.

Computation Tools for Search of Optimal Thorium Fuel Cycle and Their Fuel Management Strategies

V. Jagannathan

S.Ganesan

Usha Pal

R. Karthikeyan

R.P.Jain

ANALYSIS OF NUCLEAR DATA

Wednesday AM

First Analysis of the BASALA-H Experimental Programme: Reference and Void Configurations

Blaise, Patrick

Fougeras, Philippe

Philibert, Herve,

Laval, Valerie

Perret, Gregory

Detailed Analysis of the Second Zeus Critical Experiment with MCNP

Mosteller, Russell D

Jaegers, Peter J.

OECD/NEA International Benchmark on the VENUS-2 MOX Core Measurements

Na, Byung-Chan

Sartori, Enrico

Investigation of Neutron Source Effects in Sub-Critical Media and Application to a Model of the MUSE-4 Experiments

Seltborg, P.

Jacqmin, R.

MCNP Calculations for KRITZ 2 Benchmarks using JEF-2.2 and ENDF/B-V1.5

Messaoudi, Nadia

Noynaert, Luc

HELIOS: Analysis of MOX Critical Experiments

Kriangchaiporn, N.

Stamm'ler, Rudi J J

Ivanov, Kostadin N.

MONTE CARLO METHODS

Wednesday PM

The Time Dependent Monte Carlo Midway Method for Application to Borehole Logging

Legrady, David

Hoogenboom, J. Eduard

Kloosterman, Jan Leen

On Changing Intercycle Correlation in Monte Carlo K-Eigenvalue Calculation

Ueki, Taro

Monte Carlo Analysis of Spherical Shell Transmission Experiment with New Tallying Methodology

Gardner, S.

Haghighat, A.

Patchimpattapong, A

Adams, J.

Carlson, A.

Grimes, S.

Massey, T.

Comparison of Monte Carlo Methods for Nonlinear Radiation Transport

Martin, William R.

Brown, Forrest B.

The Method of Trajectory Rotation as the Monte Carlo Variance Reduction Technique

Moskvin, Vadim

Papiez, Lech

REACTOR ANALYSIS METHODS

Wednesday PM

Isotropic Streaming Effects in Thermal Lattices

Hebert, Alain

VAREX, A Code for Variational Analysis of Reactivity Effects: Description and Examples

Kloosterman, Jan Leen

Kuijper, Jim C.

One-Dimensional Heterogeneous Interface Model for Inter-Assembly Thermal Flux Gradient Correction of Homogenization Parameters

Noh, Jae-Man

Joo, Hyung-Kook

Yoo, Jae-Woon

Cho, Nam-Zin

Modeling of Continuous Reload HTR Systems by the PANTHERMIX Code System

Oppe, J.

Kuijper, J.C.

de Haas, J.B.M.

Verkerk, E.C.

Klippel H.T.

Application of the WIMS7B Code to Computational Benchmark Calculations of VVER Assemblies

Sultanov, N.V.

Laletin, M.N.

Kovalishin, E.A.

Rod Drop Experiment Analysis Equations

Svarny, J.

Unit-Cell Depletion Analysis with Axially Varying Composition

Milosevic, M.J.

Lou, T-P.

Vujic, J.

Greenspan, E.

Petrovic, B.

PARTICLE TRANSPORT

Wednesday PM

Adjoint Charge Deposition and CAD Transport in ITS

Franke, Brian C.

Kensek, Ronald P.

Schriner, Heather K.

Lorence,, Leonard J.

Gelbard, Fred

Warren, Steve

Characterization of Neutron Emission from A D-D Filled Plasma Focus

Rocchi, Federico

Sumini, Marco

The Moment Condensed History Algorithm for Monte Carlo Electron Transport Simulations

Tolar, Jr., Danny R.

Larsen, Edward W.

Diffusion-Collision Model of Multiple Scattering of Charged Particles

Papiez, Lech

Vladimir Tuvolsky

Higher Harmonics Influence for the Noise Calculation of the Accelerator Driven System

Rugama, Y.

Munoz-Cobo, J.L.

Valentine, T.E.

Comparative Analysis of Effective using Reactor Beams and Neutron Source Based on Acceleration for BNCT and Fast Neutron Therapy

Korobeinikov, V.V.

Kononov, O.A.

Kononov, V.N.

Litiaev, V.M.

Sysoev, A.S.

Neutron Fluence Calculations for the Reactor Vessel

Temesvari, E.

Hegyí. Gy.

Hordosy, G.

Kereszturi, A.

Maraczy, Cs.

OPTIMIZATION

Thursday AM

BWR Fuel Assembly Axial Design Optimization using Tabu Search

Martin-del-Campo, C.

Francois, J.L.

Morales, Luis B.

Feasibility Study of a System for the BWR Control Rod Pattern Based on Fuzzy Logic and Heuristics

Francois, J.L.

FORMOSA-P Constrained Multiobjective Simulated Methodology

Keller, Paul M.

Application of a Two-Stage Genetic Algorithm for BWR Loading Pattern Optimization

Kobayashi, Yoko

Aiyoshi, Eitaro

On the Application of an Adjoint Reshuffling-Invariant Nuclide Density Field for Accelerating Equilibrium Cycle Iterations

van Geemert, R.

Hoogenboom, J.E.

Generalized Perturbation Theory in Dragon: Application to PWR Assembly Calculations

Courau, T.

Marleau, G.

REACTOR ANALYSIS METHODS

Thursday AM

A Preliminary Study of the Effect of Shifts in Packing Fraction on K-Effective in Pebble-Bed Reactors

Ougouag, Abderrafi M

Terry, William K.

PARAGON: The New Westinghouse Assembly Lattice Code

Ouisloumen, M.

Huria, H.C.

Matsumoto, Hideki

Analysis of One-Group and Multigroup Transport Equation Solutions Methods for Nuclear Reactor Assemblies

Poveschenko, T.S.

Three-Dimensional Core Models in Research Simulators

Puska, Eija Karita

Norrman, Sixten

Nihlwing, Christer

Intra-Nodal Reactivity Calculations Based on the Variational Nodal Method

Rineiski, A.