

Call for Papers
**International Nuclear Codes
Workshop/MCNEG – 2008
3rd – 6th March 2008
Sellafield Ltd, Risley, Cheshire UK**

Aimed at users of all radiation transport codes, the 14th annual meeting of MCNEG will provide delegates with the opportunity to present and discuss their applications and recent developments of Monte Carlo and deterministic codes in radiotherapy, radiation protection, radioactivity, criticality, nuclear and other industries. The meeting will have the same informal format as used successfully in previous meetings encouraging extensive discussions and feedback on recent topics in these areas of Monte Carlo.

Immediately before the MCNEG meeting is a two-day workshop on nuclear codes. In this workshop, the developers of four nuclear codes (ATTILA, KENO, MCBEND and MCNP-VI SED) will provide a short introduction to their codes.

Additional talks are scheduled introducing Monte Carlo and other topics in nuclear transport codes.



The meeting will include the following:

- Several talks from the invited speakers on recent Monte Carlo topics
- Presentations by delegates on submitted topics (20-30 minutes)

The cost for attendance of the International Nuclear Codes workshop is £210, and for the MCNEG 2008 meeting is £160.

A preliminary workshop and meeting programme can be found at the end of this announcement.

Travel Bursaries

We are again pleased to announce that a limited number of travel bursaries, supported by the Institute of Physics, are available for student presenters. If you wish to apply for a travel bursary, please contact the organiser at the address below.

Submission procedure

Please submit your **One-page** presentation abstracts in **electronic form** by the extended deadline of the 26th January 2008 to Paul.Hulse@sellafieldsites.com. Abstracts should not contain page numbers, headers or footers, and that there should be adequate margins - at least 25mm on all sides. Ideally, please use A4 format if possible.

Location

This years meeting will be held at the Birchwood Park conference centre, next to Sellafield Ltd's offices in Risley nr Warrington, Cheshire. The conference centre is easy to access from the M6 and M62 motorways, and from Birchwood Railway station.

Subject Tracks

We encourage presentations on any subject relating to the use or development of Monte Carlo and deterministic codes for radiation transport calculations. We particularly welcome presentations relating to:

- Medical applications – dosimetry, imaging, radiography, radiotherapy, etc
- Nuclear applications – design, commissioning, safeguards, etc
- Space applications
- Radiation protection in all areas
- Nano- and micro-dosimetry
- Detector and instrumentation optimisation and design
- Criticality

Sponsorship

International Nuclear Codes Workshop/MCNEG 2008 is sponsored by



Important Dates

17 th September 2007	-	First call for papers
26 th January 2008	-	Extended closing date for submission of abstracts
21 st February 2008	-	Closing date for pre-booking
3 rd -6 th March 2008	-	International nuclear codes workshop/MCNEG 2008

Further Information and Contact Details

For all questions regarding registration and the administration of MCNEG 2008 please contact the Meeting Secretary:

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For all questions regarding MCNEG 2008 or the workshop please contact

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Preliminary programme

International Nuclear Codes Workshop

Monday 3rd March 2008

In addition to the code workshops below there will be additional tutorial sessions on use of Monte Carlo for shielding and Criticality, and we hope to be able to run a session on the history of UK nuclear codes.

Timings for the final programme have yet to be confirmed, however we expect to run workshops on the following codes:

MCBEND

MCBEND is a Monte Carlo transport code developed by Serco Assurance. Users can benefit from using MCBEND for design and predictive assessment of radiation levels in and around: Reactor plant; Reactor Pressure Vessel; Fuel transport flasks; Reprocessing plants; Fusion devices; Nuclear instrumentation; Borehole logging tools; Waste storage facilities; Food Irradiation Facilities

Attila

Attila is a deterministic transport software system developed by Transpire, Inc. which directly solves the governing transport equations. Attila can import CAD data, and analyses can be set-up through an intuitive graphical user interface. Attila calculates the full solution everywhere in the computational domain, making it well suited for a broad range of applications.

Tuesday 4th March 2008

KENO

KENO is a Monte Carlo criticality safety code developed at Oak Ridge National Laboratory as part of the SCALE code system. KENO is employed to determine effective multiplication factors (k-eff) for multidimensional systems. In addition, KENO provides capability to perform sensitivity/uncertainty calculations via the TSUNAMI calculational sequence in SCALE. Two-dimensional colour plots and three-dimensional interactive visualization of the geometry model and calculational results can be generated on Unix, Linux, Windows, and Mac workstation and personal computer platforms.

MCNP-Vised

MCNP-Vised is a visual editor for MCNP offering a number of features including: Surface Creation/Cell Creation; access to the MCNP Materials/Materials Library; Lattice Creation; Importances; Source Points/Collision Points; KCODE Source Generation Points; 3D Plots; 3D Radiographic Plots; Tally Plotting; CAD Import; A Surface Wizard to assist in the creation of complex MCNP surfaces.

MCNEG

Wednesday 5th March 2008

Medical applications – dosimetry, imaging, radiography, radiotherapy, etc

Nuclear applications – design, commissioning, safeguards, etc

Space applications

Thursday 6th March 2008

Radiation protection in all areas

Nano- and micro-dosimetry

Detector and instrumentation optimisation and design

Criticality