

**Hong Kong Institution of Physicists in Medicine Training Course on
Basic Monte Carlo simulations using FCCC MC Package and FLUKA**

Course Content:

A Brief Introduction to Radiation Transport Monte Carlo:-

- Introducing Monte Carlo
- Sampling schemes
- Radiation transport Monte Carlo

The Fox Chase Cancer Centre (FCCC) Monte Carlo Code Package:-

- MCBEAM - simulating high-energy electron and photon beams from medical accelerators
 - Working environment
 - MCBEAM commands
 - MCBEAM input
 - Simulating a linear accelerator beam
 - MCBEAM output
- MCPLOT - analysing the phase space data and derive information about the beam fluence, energy spectra, etc...
- MCSIM, Monte Carlo dose calculation tool
 - Working environment
 - MCSIM commands
 - MCSIM input
 - Simulating a patient / phantom dose calculation
 - MCSIM output
- MCDICOM - converting TPS DICOM files into readable input for MCSIM and MCSHOW
- MCSHOW - analysing MCSIM output

The FLUKA Simulation Package:-

- Introduction to FLUKA
- Running a FLUKA simulation
- Basic Input
 - General Definitions
 - Geometry
 - Physics Settings
 - Estimators and Scorings
 - Basic Output
- Flair - FLUKA Advanced Interface
 - User Interface
 - Input Editor
 - Material Database
 - Geometry Editor
 - Starting a Run using Flair
 - Standard Output
 - Plotting
- Advanced Topics
 - Biasing techniques
 - Advanced Geometry
 - Activation

Date, Time and Venue:**The course will be held on:**

Date	Time
22 February 2014	2:00pm-5:00pm
1 March 2014	2:00pm-5:00pm

Duration of course:

6 hours lectures, Q&A

Venue:

Room 1102, 11/F, Li Shu Pui Block,
Nursing School, Hong Kong Sanatorium & Hospital

Speakers:

Stephanie Lo, Ph.D.
Medical Physicist II,
Medical Physics & Research Department
Hong Kong Sanatorium & Hospital

Victor Cheung, MPhil
Medical Physicist Assistant II,
Medical Physics & Research Department
Hong Kong Sanatorium & Hospital

Target participants:

This course is open to HKIPM members only.

Teaching Medium

The course will be conducted in English

Tuition Fee:

Free of charge

Enrollment:

Enrollment is open to members of HKIPM only. Completed registration form shall be sent to Ms. Ruby Ho, Secretary of the Hong Kong Institution of Physicist in Medicine at the address give below.

Ms. Ruby Ho
Medical Physics & Research Department
8/F, Li Shu Fan Block
Hong Kong Sanatorium & Hospital
2 Village Road, Happy Valley
Hong Kong Island.

Closing Date for Application:

Saturday 15 February 2014