Announcement of the PHITS Tutorial in Indonesia 2023

Place: Physics department room, Gadjah Mada University, Yogyakarta, Indonesia
Eligibility for participation: None (Open to everybody[1])
Course date: Feb. 6-9, 2023
Deadline for registration: Dec. 28, 2022 for new PHITS users
Jan. 27, 2023 for registered PHITS users
Maximum number of participants: 40 (accepted in order of registration)
Registration Fee: Free
(For lunch and coffee break will be charged IDR. 500.000 per participant)
Language: English
Course contents: Basic course
Lecturer: Dr. Tatsuhiko Sato (Japan Atomic Energy Agency), Japan
Local organizer:
Prof. Yohannes Sardjono (National Research and Innovation Agency of Indonesia)
Mr. Rasito (National Research and Innovation Agency of Indonesia)
Dr. Bambang Murdaka Eka Jati (Gadjah Mada University)

PHITS is a general-purpose Monte Carlo particle transport simulation code developed under collaboration between Japan Atomic Energy Agency (JAEA) and several institutes all over the world. It can deal with the transport of nearly all particles over wide energy ranges, using several nuclear reaction models and nuclear data libraries. PHITS can support your researches in the fields of accelerator technology, radiotherapy, space radiation, and in many other fields which are related to particle and heavy ion transport phenomena. See PHITS website in more detail. (http://phits.jaea.go.jp)

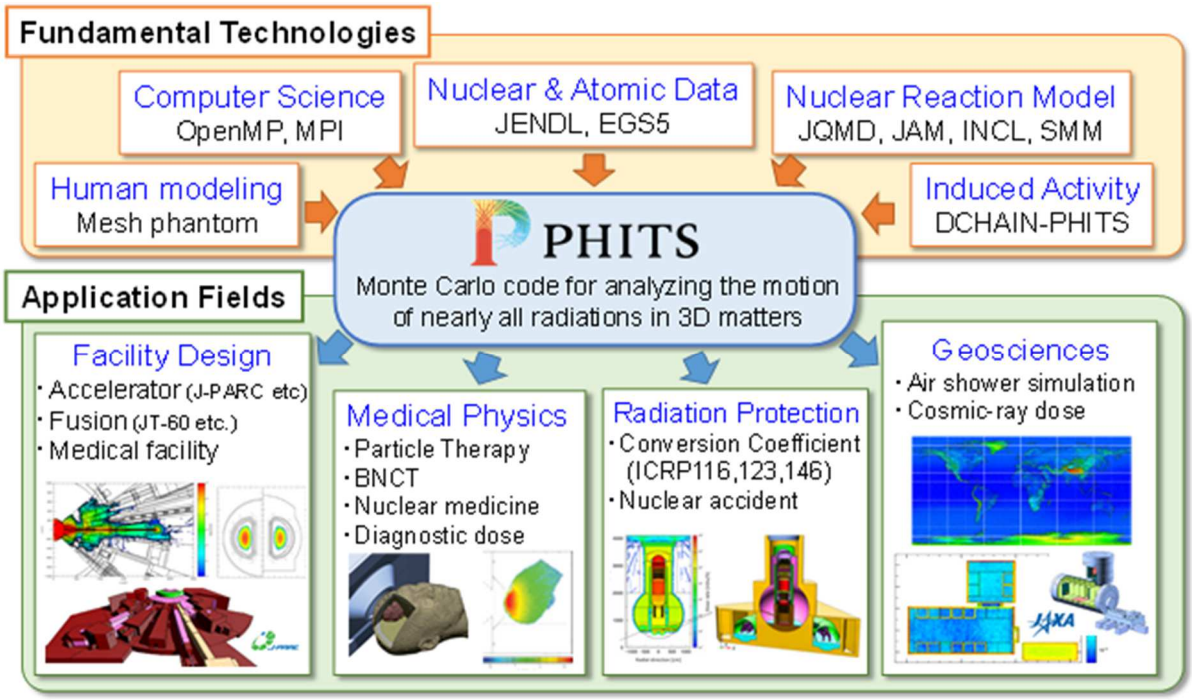
If you would like to attend the course, you have to obtain the license of the latest version of PHITS. It is free of charge, and the instruction to get the license is given

[1] Attendees must obtain the PHITS license in prior to the course. Registration might be declined due to the capacity of the rooms for tutorial.

below (https://phits.jaea.go.jp/howtoget.html). It takes approximately a month for the approval process so that the application form must be submitted to JAEA by 4 January 2023. When you submit the application form, please select "Submission of application form" in the contact page of PHITS website, and write "I would like to attend PHITS course in Indonesia 2023" in the message body. If you have already obtained the PHITS license, please select "PHITS tutorial registration" in the contact page of PHITS website, and write "I would like to attend PHITS course in Indonesia 2023" in the message body.

Attendees must bring a laptop PC with either Windows or Mac OS. During the course, they will learn the basic usage of PHITS such as the construction of 3D geometry and the definition of source particles and tallies. There is no particular skill that should be learned in prior to attending the basic course, but we recommend to take a brief look of PHITS tutorial video on YouTube to grasp the tutorial contents.
https://www.youtube.com/playlist?list=PLe8Wrr-sE8vy-ygWoAqWVrvK89PfxUFYO

If you have any question about the course, please contact us via PHITS website (https://phits.jaea.go.jp/contact/edit/en).



Overview of the PHITS code

Tentative Program

Monday, 6 Feb
8:00-8:30: Registration
8:30-10:00: Installation & introduction
(coffee break)
10:15-12:00: Basic Lecture I (geometry)
(lunch)
13:00-15:00: Basic Lecture I (geometry & Source)

Tuesday, 7 Feb
08:00-10:00: Basic Lecture II (tally)
(coffee break)
10:15-12:00: Basic Lecture II (tally)
(lunch)
13:00-15:00: Basic Lecture III (parameter setting)

Wednesday, 8 Feb
08:00-09:00: Basic Lecture III (parameter setting)
09:00-10:00: Advanced Lecture (complicated source definitions)
(coffee break)
10:15-11:00: Advanced Lecture (complicated source definitions)
11:00-12:00: Exercise (stop α, β, γ-rays & neutron)
(lunch)
13:00-15:00: Exercise (stop α, β, γ-rays & neutron)

Thursday 9 Feb
08:00-10:00: Advanced Lecture (BNCT Dosimetry)
(coffee break)
10:15-12:00: Exercise (melt snowman by proton beam)
(lunch)
13:00-15:00: QA session

Lecturer Profile

Name

Tatsuhiko Sato

Position/Organization

Research fellow / Japan Atomic Energy Agency

Specially appointed professor / Osaka University

Education and employment history

2001 Mar. Ph.D., Department of Nuclear Engineering, Kyoto University

2001 Apr. Researcher, Japan Atomic Energy Research Institute

2005 Oct. Researcher, Japan Atomic Energy Agency (due to re-organization)

2011 Oct. Principal Researcher, Japan Atomic Energy Agency

2018 Dec. – Specially appointed professor, Osaka University (Cross appointment contract)

2022 Apr. – Research fellow, Japan Atomic Energy Agency

Major professional accomplishments

He is the principal investigator of the current PHITS development team. He also used the code by himself for cosmic-ray research and medical physics. He developed a model for estimating the terrestrial cosmic-ray fluxes for both solar quiet and storm periods based on the airshower simulation performed by PHITS. He also developed a model for estimating the therapeutic effects of charged particle therapy and boron neutron capture therapy based on the microdosimetric simulation performed by PHITS. He is a member of International Commission on Radiological Protection (ICRP) Committee 2 since 2017. He published more than 180 peer-reviewed papers including 49 corresponding-author ones, and they have been cited by more than 6,000 times (according to Google Scholar).