



Announcement of the PHITS Intermediate Course and Mini-Workshop at Yonsei University in Wonju, South Korea 2024

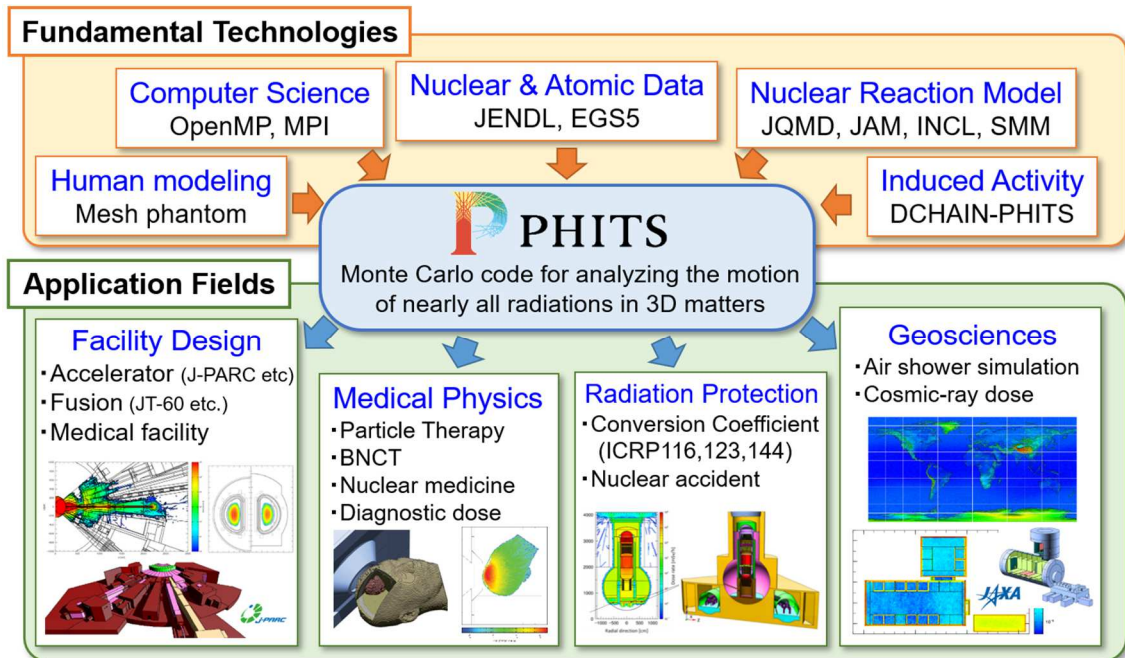
- ✓ Place: Convergence Hall (Rm. 323), Yonsei University Mirae Campus, Wonju
- ✓ Eligibility for participation: Open to everyone who has PHITS license.
- ✓ Course date: July 23-24, 2024
- ✓ Deadline for registration: June 28, 2024
- ✓ Maximum number of participants: 30 (accepted in order of registration)
- ✓ Registration Fee: Free (Lunch and dinner are at your own expense)
- ✓ Language: English
- ✓ Course contents: 1.5-day intermediate course + 0.5-day workshop
- ✓ Lecturer: Dr. Tatsuhiko Sato (Japan Atomic Energy Agency), Japan
- ✓ Local organizer: Prof. Yeon Soo Yeom (Yonsei University), South Korea

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 research 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 PHITS license in prior to the registration to the course.** It is free of charge, and the instruction to get the license is given below (<https://phits.jaea.go.jp/howtoget.html>). For persons belonging to an institute in South Korea or other pre-approved countries listed on the website, we recommend obtaining the license via OECD/NEA databank because the approval process is much faster. After obtaining the PHITS license, please register to the course via the following link (<https://forms.gle/z7MfDsHPnkVKYWnZ6>).

Attendees must bring a laptop PC with either Windows or Mac OS. During the course, they will learn the advanced usages of PHITS such as complicated source & geometry definitions and the variance reduction technique. Thus, it is desirable that all attendees have the basic knowledge of PHITS, which can be obtained by taking the online PHITS tutorial for beginners held on 10-14th June (<https://phits.jaea.go.jp/News.html#news0055>). During the mini-workshop, attendees are encouraged to present their research (~10 min) and discuss it with the lecturer and other participants.

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

Tuesday, 23 July 2024

9:30-10:00 Registration

10:00-10:30 Opening remarks

10:30-12:00 Advanced lecture (Complicated source definition)

(lunch)

13:00-14:30 Advanced lecture (Useful functions)

15:00-16:00 Advanced lecture (Variance reduction: Importance method)

16:30-18:00 Advanced lecture (Variance reduction: Weight Window method)

(official dinner)

Wednesday, 24 July 2024

10:00-12:00 Advanced lecture (TBA)

(lunch)

13:00-18:00 Mini-workshop

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 200 peer-reviewed papers including 51 corresponding-author ones, and they have been cited by more than 8,000 times (according to Google Scholar).