

International school on Real-time systems in Kuala Lumpur

NOMACHI Masaharu

Target of the school

Learn Physics but a few experiences on the Radiations measurements.

Medical physics students who want to learn physics behind radiation detectors.

Can get knowledge?

Not much. Please learn how to get knowledge, how to improve yourself.
We, lectures, will learn from you!

Why hands-on exercises?

Experience of mistake is important. Usually it is not on the textbook.
Experiences to take over the mistake is more important.
.....don't repeat the same mistake.

International school on real-time systems in Osaka 2-7 June 2014



International school on real-time systems in Ho Chi Minh City 18-26 July 2016

<http://ntlab.hcmus.edu.vn/en/rt2016-school/>



IEEE NPSS International School for Real Time Systems in Particle Physics 2018

7 Jul 2018 → 17 Jul 2018

iThemba LABS (Cape Town)

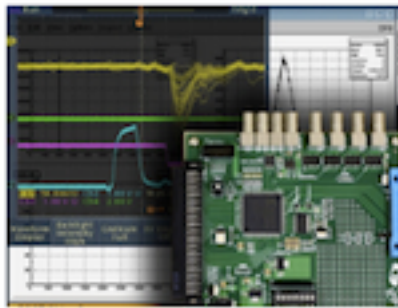
Bruce Mellado Garcia (University of the Witwatersrand), Christian Bohm (Stockholm University (SE))



Lecturers

- Abdallah Lyoussi, CEA Cadarache, France
- Bruce Mellado, Wits University, SA
- Christian Bohm, Stockholm University, Sweden
- Cinzia Da Via, Manchester University, UK
- Martin Grossmann, PSI, Switzerland
- Martin Purschke, BNL, USA
- Masaharu Nomachi, Osaka University, Japan
- Michael Holik, IEAP CTU Prague & UWB Pilsen, Czech Republic
- Patrick Le Du, IPN Lyon, France
- Stefan Ritt, PSI, Switzerland
- Ivan Stekl, IEAP CTU Prague, Czech Republic
- Vladimir Vicha, IEAP CTU, Czech Republic
- Zhen-An Liu, HEP, China





International school on Real-time systems in Kuala Lumpur

Students

12 Malaysia

6 Vietnam

4 Indonesia

1 Philippine

1 China

14 Female

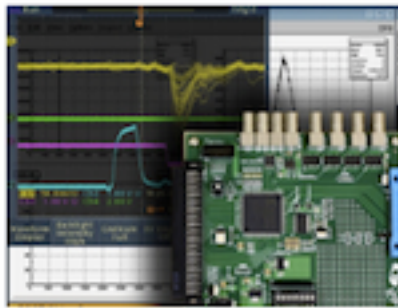
10 Male

Lecturers

- Christian Bohm, Stockholm University, Sweden
- Marc-André Tetrault, Harvard Medical School, USA
- Martin Grossmann, PSI, Switzerland
- Michael Holik, Czech Technical University in Prague, Czech
- Stanislav Pospisil, Czech Technical University in Prague, Czech
- Masaharu Nomachi, Osaka University, Japan
- Vo Hong Hai, VNU HCMC, Vietnam
- Hoang Thi Kieu Trang, VNU HCMC, Vietnam

- Masashi Kaneta, Tohoku University, Japan
- Takatsugu Ishikawa, Tohoku University, Japan
- Yoshitaka Kuno, Osaka University, Japan

- Patrick Le Du, IPN Lyon, France (in SKYPE)



International school on Real-time systems in Kuala Lumpur

School President

Prof. Hasan Abu Kassim, Head of Department of Physics, University of Malaya

Executive committee

[Masaharu Nomachi](#), Osaka University (Japan)

[Christian Bohm](#), Stockholm University, IEEE

NPSS Transnational Committee chair

(Sweden)

[Hasan Abu Kassim](#), Head of Department of
Physics, University of Malaya (Malaysia)

[Norhasliza Yusof](#), University of Malaya
(Malaysia)

[Patrick Le Du](#) Saclay and IEEE (France)

Local organizing committee

Hasan Abu Kassim

Norhasliza Yusof

Chew Khian Hooi

Siti Fairus Abdul Sani

Zarina Aspanut

Mohd Hamdi Ali (Buraidah)

Woo Haw Jiunn

Host and Sponsors

University of Malaya

IEEE Nuclear and Plasma Sciences Society

KEK, High Energy Accelerator Research Organization

Osaka University, Institute for Radiation Science

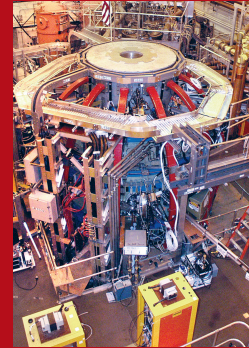
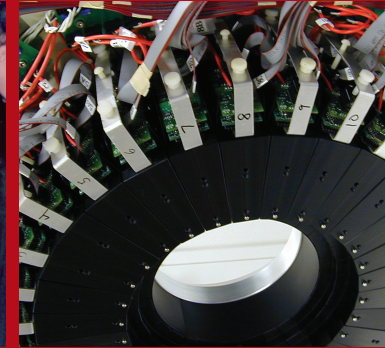
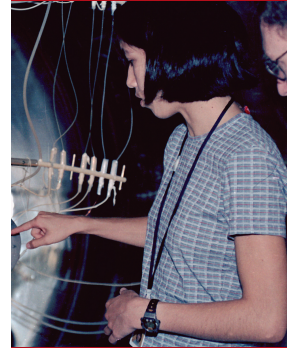
Czech Technical University in Prague

JOIN the Nuclear & Plasma Sciences Society

*People working together utilizing science,
expanding the industry, furthering careers*



The IEEE Nuclear and Plasma Sciences Society (NPSS) originated in 1949 as the Professional Group on Nuclear Science within the IRE. At about the same time, the AIEE formed two committees, one on nucleonics, the other on nucleonic and radiation instruments. In 1963, the IRE and AIEE merged to form the IEEE. This resulted in the creation of the Nuclear Science Group. In 1972, Plasma Science was added and the group was promoted to a society. The NPSS is composed of eight technical committees, and a Transnational Committee, with a common interest in advancing nuclear and plasma sciences.



ADVANTAGES OF MEMBERSHIP

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- IEEE Publications at significantly reduced member rates
 - IEEE Transactions on Plasma Science–TPS*
 - IEEE Transactions on Nuclear Science–TNS*
 - IEEE Transactions on Medical Imaging–TMI*
 - IEEE Sensors Journal SJ*
- NPSS conferences and professional development courses
- NPSS and IEEE local meetings
- NPSS Newsletter
- Free Internet access to TPS, TNS and NPSS Conference Proceedings
- NPSS technical committee or conference committee volunteer opportunities
- Discounted conference and short course fees
- Special student rates for undergraduate and graduate students

TECHNICAL COMMITTEES

- Computer Applications in Nuclear and Plasma Science
- Fusion Technology
- Nuclear Instruments and Detectors
- Nuclear Medical and Imaging Sciences
- Particle Accelerator Science and Technology
- Plasma Science and Applications
- Pulsed Power Science and Technology
- Radiation Effects
- Radiation Instrumentation

CONFERENCES

ANNUAL

- Nuclear and Space Radiation Effects Conference–NSREC
- International Conference on Plasma Science–ICOPS
- Nuclear Science Symposium–NSS
- Medical Imaging Conference–MIC

BIENNIAL

- European Conference on Radiation and its Effects on Components and Systems–RADECS
- Pulsed Power Conference–PPC
- Particle Accelerator Conference–PAC
- Real Time Conference–RTC
- Symposium on Fusion Engineering–SFE
- International Conference on Accelerator and Large Experimental Physics Control Systems–ICALEPCS
- International Conference on High Power Particle Beams–BEAMS
- Megagauss Conference

www.ieee-npss.org

Goal of the school

- The goal of the school is,
 - To train young students in the area of radiation detectors and its applications.
 - To stimulate the development of real-time system in the area.
 - To promote the participation of young scientists in radiation measurements and related fields.
 - To make **human networks** in students and lectures.

School Schedule

	10 Sun.	11 Mon.	12 Tue.	13 Wed.	14 Thu.	15 Fri.
8:45 9:30		Exercise 1	Lecture D1	Exercise 2	Lecture G1	Lecture J1
9:35 10:20	Orientation		Lecture D2		Lecture G2	Lecture J2
10:50 11:35	Lecture A1	Exercise 1	Lecture E1	Exercise 2	Lecture H1	Lecture K
11:40 12:25	A2		Lecture E2		Lecture H2	Analysis
	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
14:05 14:50	Lecture B	Exercise 1	Lecture F	Exercise 2	Analysis	Students Presentation
15:20 16:05	Lecture C1	Exercise 1	Analysis	Exercise 2	Analysis	
16:10 16:55	Lecture C2				Banquet In Downtown Restaurant	
10– 15 November, 2019 (6 days)						

Exercises

Students will work in smaller groups (4 people) on hands-on laboratory exercises.

There are 6 exercises in total.

Each exercise is a half day exercise. you will be able to do 4 of them.

- 1. Time of Flight measurement**
- 2. Pulse shape discrimination**
- 3. Timepix detector**
- 4. EasyPET**
- 5. Image reconstruction**
- 6. Photon Counting**

Exercises are introduced today.

- Take all lectures and social events.
 - If you have a problem to take them, please let us know. We will care it.
- Official language is English
- If you have any problem, please let us know.
- Call Nomachi
 - +60-14-678-2257 (Malaysia number)

Please pay attention to safety.

<https://indico.cern.ch/event/854879/timetable/#20191110>