Research and exchange opportunities with Japan
- A personal collection -

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Disclaimer: This talk is rather about internships than about taking classes at Universities

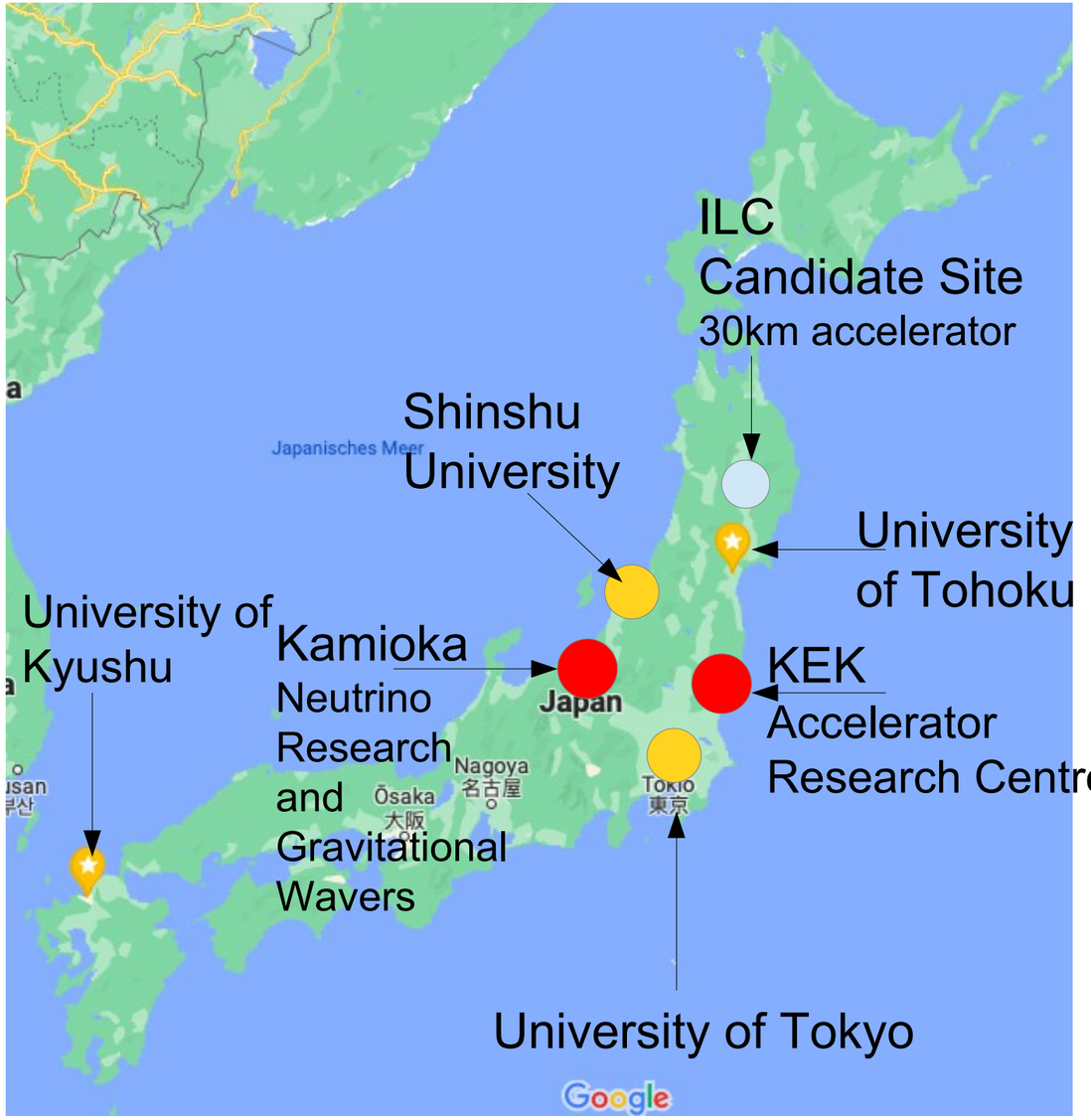
Studying in Japan
Université Paris-Saclay Nov. 2021

Qui-suis je?

- Roman Pöschl
  - Laboratoire des deux Infinis Irène Joliot Curie (IJCLab)
  - Unite Mixte entre CNRS et Université Paris Saclay
- Chercheur CNRS dépuis 2011
  - Specialité: Physique des particules
- Collaboration avec le Japon depuis 2007
  - Voyages et séjours fréquents



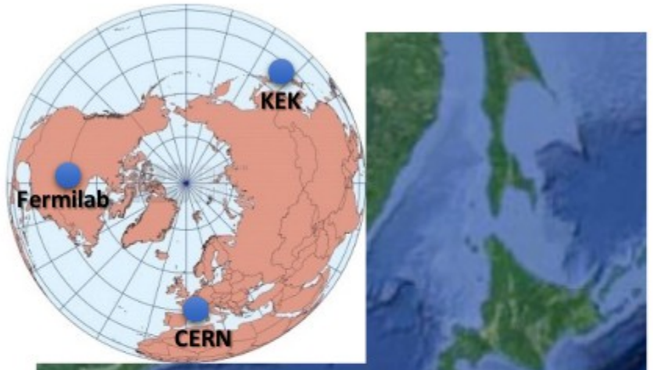
Japan – Partners and Research sites

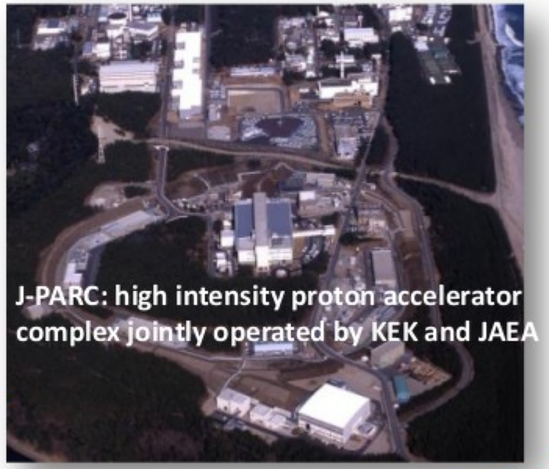


- Intensive collaboration with several top Universities and research sites in Japan
- KEK is large accelerator research centre for accelerator based particle physics
- ILC is international accelerator project discussed by Japanese government
  - Tomography of Higgs boson
- World class neutrino and gravitational waves programme in Kamioka
- All these sites and institutes offer the opportunity of internships
  - e.g. Master 1 or Master 2 but also L3 is possible

Japan – KEK

KEK Geography





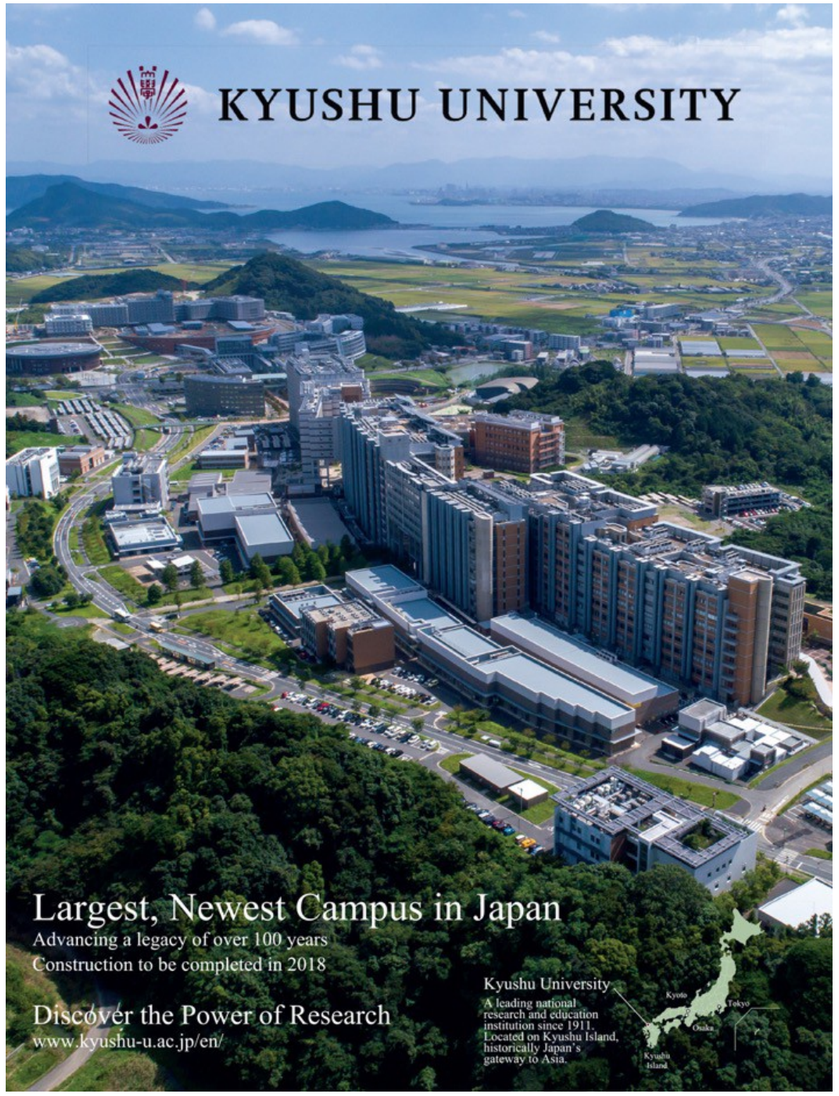


KEK covers diverse field of accelerator based science making full use of the electron machines in Tsukuba and the proton machines in Tokai.

KEK 2021

Masanori Yamauchi, KEK Director, TYL/FJPPL Meeting 2021

Japan – Kyushu University



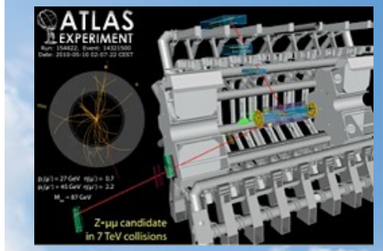
Kyushu University

Established in 1911
One of the major national universities in Japan

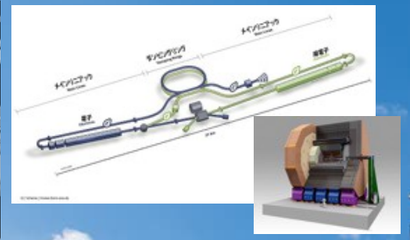
- Number of students = 18,585, including 2,270 students from overseas (81 countries and regions)
- Number of faculty = 2,110
- A total of 16 double degree programs with foreign universities
- Located in Fukuoka city in Kyushu island
- 23 MoU with French Institutions (see backup)



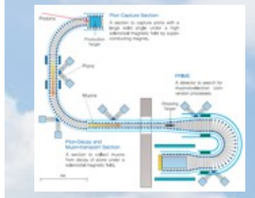
High Energy Physics Group at Kyushu University

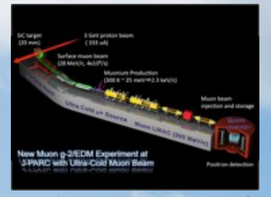


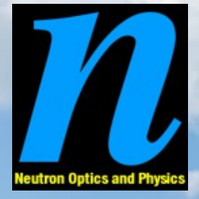
ATLAS exp. at the LHC



ILC (ILD, CALICE)



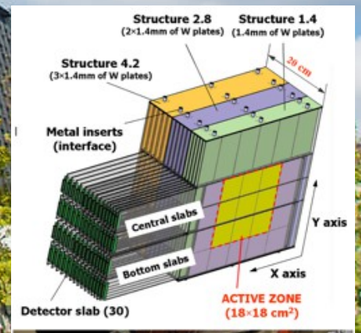


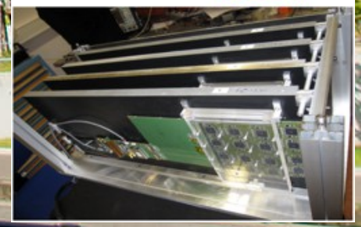


Experiments at J-PARC

Close collaboration of Kyushu-Ijclab
for SiW electromagnetic calorimeter







CALICE 2015



ALCW 2018



CHEF 2019



Kiyotomo Kawagoe, Kyushu University

Internship Eloise Mestre 2019

A main vector – TYL/FJPPL: French Japanese virtual laboratory



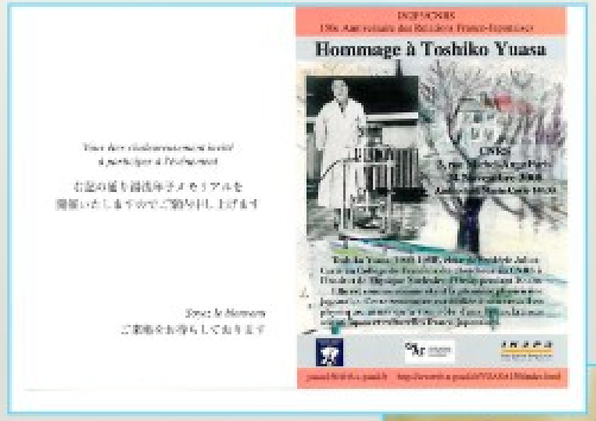
A main vector – TYL/FJPPL: French Japanese virtual laboratory

- **Toshiko Yuasa France-Japan Particle Physics Laboratory TYL-FJPPL:**
  - Created in 2006 as a virtual international research laboratory between CNRS, CEA and KEK to foster joint research projects between FR and JP.

    Participation of 16 laboratories at IN2P3 (joint research units of CNRS and partner Universities), of 5 departments at IRFU, of KEK and of teams in Japanese universities pursuing research in particle physics.

    Renamed in honour of Toshiko Yuasa in 2008.
  - Web site: http://fjppl.in2p3.fr
  - Current Agreement valid till May 21th, 2022.

- **Successful joint projects, including**
  - Japan access to LHC data through CC-IN2P3.
  - ILC project merged Asian and European views.
  - IN2P3 joined T2K and Japan joined Double-Chooz.
  - IN2P3 joined Belle II.





TYL/FJPPL: Activities 2019-2021



- Support provided for student exchanges:
  - 1 (FR→JP, virtually) in 2020
- Promote careers of young researcher: Young Investigator Award:
  - Ritsuya Hosokawa (2020)
  - Sergey Suvorov (2021)
- Toshiko Yuasa Female Scientist Prize of Ochanomizu University.
  - Mika Masuzawa (Gold, 2020)
  - Yumi Kanno, Yu Nakahama (Silvers, 2021)
- Participation to the Rikejo Camp with high school student.
  - Sep 2020 and Apr 2021 (online)
- TYL-triggered Co-supervision of graduate students:
  - Tohoku U. → U. Paris-Saclay [HEP_09]
  - U. Tsukuba → U. Grenoble [HAD_04]

Student exchange (Yuichi Okugawa, Victor Lohezic)
Triggered agreements between UPSaclay and Tohoku U





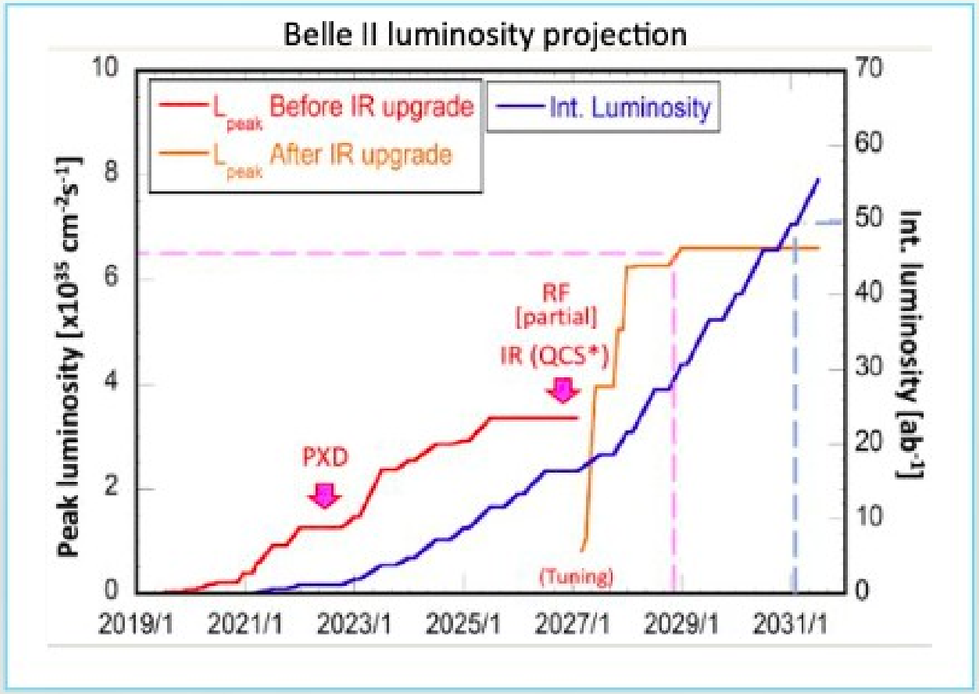


TYL/FJPPL: Future

- **Proposal:**
  - Expand the scope of TYL by creating a new joint CNRS-KEK *real* laboratory at KEK.
    KEK and CNRS staff would belong to this new lab.
  - Associate IRFU and French & Japanese Universities as partners.

- **Context:**
  - Already excellent level of joint activities.
  - KEK hosts key experiments and unique research facilities.
    Main ones for the TYL are: Belle II experiment & accelerator facilities.

    Opportunity w.r.t. the calendar:
    Data taking of Belle II and developments
    toward the high instantaneous luminosity of $e^+ e^-$ colliders.



- **Objectives:**
  - Enhance visibility of already existing joint activities
    and facilitate emergence of new projects.
  - Gather additional resources from France and Japan external sources (ANR, ERC, JSPS, …).
  - Facilitate mid- and long-term stays.

Shoji Hashimoto, TYL Annual Meeting 2021

What does this mean for students?

- International research projects have created tight links with international partners

- Entities as TYL/FJPPL provide a regular forum of exchange between Japanese and French researchers
  - Student exchange is at the heart of the mission of TYL/FJPPL, numerous examples
  - There are for sure other forums similar to TYL

- Excellent links in France and in Japan between research institutes and Universities facilitate access to internships for students
  - In principle all mentioned sites and Universities are accessible for internships
  - Integration in local research teams
  - We are partners, thus link to France is always ensured
  - Internships can turn into master and PhD thesis

- Long standing collaboration means that there are numerous contacts, local colleagues but also e.g. French Embassy to Japan

- Entry point might be internship in local research institute

- If you really study in Japan links to Japanese collaborators can be established

In short ...

- International research allows for creating a network of institutes and people that facilitates access to World class research facilities and groups
  - This is in particular true for Japan

- Excellent links to top Universities are an ideal premise for a first-class formation of students
  - All speakers of today can help you to make the step to Japan
  - You are most welcome to contact us

Backup

Partnerships of Kyushu

Kyushu University has 23 MoUs with French institutions (as of 2021 Nov)
International Academic Cooperation and Student Exchange Programs
https://www.isc.kyushu-u.ac.jp/intlweb/agreeview/worldmap.php?en=1

List of French institutions

- **ITER Organization**
- **Aix-Marseille University**
- **Ecole Normale Superieure Paris-Saclay**
- **Clermont Auvergne Institut National Polytechnique(formerly known as SIGMA Clermont)**
- **Université Grenoble Alpes**
- **National Institute of Applied Sciences of Lyon**
- **L'Ecole Nationale Superieure d'Ellectrotechnique, d'Electronique, d'Informatique, d'Hydraulique et des Telecommunications de Toulouse**
- **National Institute for Oriental Languages and Civilizations (INALCO)**
- **CentraleSupélec (Former: Ecole Superieure d'electricite)**
- **University of Strasbourg**
- **Mines Paris Tech**
- **Ecole Nationale Superieure d'Architecture de Paris la Villette**
- **University of Technology of Belfort-Montbéliard**
- **ENSAP Bordeaux**
- **Bordeaux Sciences Agro**
- **Sciences Po Bordeaux**
- **Bordeaux University**
- **The University Bordeaux Montaigne**
- **Bordeaux Institute of Technology（Bordeaux INP）**
- **Reims Management School**
- **ENSSAT, Universite de Rennes 1**