

French-Japanese Week on Disaster Risk Reduction

日仏防災イベント週間



Tokyo & Sendai, October 2-8, 2017



AMBASSADE DE FRANCE
AU JAPON



French-Japanese Week on Disaster Risk Reduction

October 2nd to October 8th, 2017
Japan

Information and program at <http://drr.science-japan.org>

In Japan and in France, natural risks threaten population and strategic facilities such as power plants and public transport networks. This is why it is important to understand these risks in order to prevent them and minimize their damage.

Scientific cooperation is a key element to tackle this issue that deals with various scientific fields. In this regard, the Third United Nations World Conference on Disaster Risk Reduction, held in Sendai in 2015, was an important milestone that built an international framework for the disaster risk reduction. In this context, France and Japan could foster their cooperation in order to better understand disaster risk by sharing their scientific outcomes.

Hence this week aims to gather French and Japanese scientists from various fields around:

- **A symposium** aiming to present the main actors and topics of the French-Japanese cooperation on disaster risk reduction on Monday, October 2nd.
- **Several workshops** held in Japan during the same week from Tuesday, October 2nd to Thursday, October 5th.
- **Visits** in Japan of tsunami-affected areas as well as facilities and institutions on Friday, October 6th (*by invitation only*), open campus of Tohoku University on October 7-8.

Organizers:

- Embassy of France in Japan
- Bureau français de la MFJ – UMIFRE 19 (日仏会館フランス事務所)

Co-organizer:

- Fondation Maison franco-japonaise (公益財団法人日仏会館)

Regarding general information, please contact: drr2017@ambafrance-jp.org

- Mrs. Aki SATO, Assistant
- Mr. Pierre FEUARDANT, Project Manager
- Mr. Sébastien CODINA, Team Leader

| Date | Venue | Event | Organizers |
|-------------------------|-----------------------------------|--|---|
| Monday, October 2 | MFJ Auditorium | Symposium on French-Japanese cooperation on disaster risk reduction | Embassy of France in Japan, Bureau français de la MFJ – UMIFRE 19 |
| | Embassy of France | MUOGRAPHERS 2017 General assembly (<i>by invitation only</i>) | The University of Tokyo, ERI, BRGM, INFN, INGV, INAF, Wigner RCP, Sheffield University, CNRS, Kansai University |
| | Residence of France | Reception at 18:45 (<i>by invitation only</i>) | Embassy of France in Japan |
| Tuesday, October 3 | MFJ Auditorium | Sedimentary signature of tsunamis | Université Clermont Auvergne, IRIDeS, IPGP |
| | MFJ 601 | Workshop on earthquakes and triggered hazards | BRGM, DPRI |
| | MFJ 501 | Disaster management and health emergencies | Mines Alès, University of Nîmes, CHU Grenoble Alpes |
| | AORI | Mega-earthquakes in subduction zones: insights from fossil examples exhumed onland | University of Orléans, Universities of Kagoshima and Tokyo, AIST |
| | ERI | Monitoring of active processes in seismic and volcanic zones | IPGP, ERI |
| Wednesday, October 4 | MFJ Auditorium | France-Japan Tsunami and Disaster Risk Reduction Workshop | University of Lyon, Tohoku University |
| | MFJ 509 | Tsunami in the Atlantic and the English Channel: Definition of the effects through numerical modelling (TANDEM) Workshop | CEA with TANDEM project partners and JMA |
| | MFJ 601 | GéNéPi project workshop – mediation information system to support crisis management | GéNéPi project partners |
| | MFJ 501 | Workshop on GPR measurement of active faults and tsunami sediments (PM) | IPGS, Tohoku University |
| | RTRI | Earthquake engineering: soils, structures and Soil-Structure Interaction (<i>by invitation only</i>) | IFSTTAR, RTRI (internal meeting) |
| | ERI | Monitoring of active processes in seismic and volcanic zones | IPGP, ERI |
| Thursday, October 5 | MFJ Auditorium | Workshop on the prediction of non-linear soil behavior | SEISM, IFSTTAR, CEREMA, DPRI |
| | MFJ 601 | Knowledge and vulnerability in the Fukushima nuclear disaster (AM) | CNRS, Université de Lille |
| | | Crisis, Breaks and new Dynamics in post 3.11 Japan (CBD311), UMIFRE 19 (MFJ) (PM) | Bureau français de la MFJ – UMIFRE 19 |
| | MFJ 501 | Workshop on subsurface electromagnetic measurement | Tohoku University |
| | MFJ 509 | Tsunami in the Atlantic and the English Channel: Definition of the effects through numerical modelling (TANDEM) Workshop | CEA with TANDEM project partners and JMA |
| | ERI | Monitoring of active processes in seismic and volcanic zones | IPGP, ERI |
| | IRIDeS | France-Japan Tsunami and Disaster Risk Reduction Workshop (PM) | University of Lyon, Tohoku University |
| | IRIDeS | Reception at 18:30 (<i>by invitation only</i>) | IRIDeS |
| Friday, October 6 | Sendai, Tagajo | IRIDeS tour, field trip (<i>by invitation only</i>) | Tohoku University |
| October 7-8 | Sendai | Tohoku University open campus | Tohoku University |

Symposium on French-Japanese cooperation on Disaster Risk Reduction

Date and duration

Monday, October 2nd (one day)
10:00 am to 6:00 pm

Place

Auditorium of the [Maison franco-japonaise \(日仏会館\)](#)

Organizers

Embassy of France in Japan
Bureau français de la MFJ – UMIFRE 19 (日仏会館フランス事務所)

Language

English without translation

Contact and registration

Free of charge
Online registration: <http://drr.science-japan.org>

Event abstract

Disaster Risk Reduction is a very broad field with a lot of different disciplines in hard sciences and human sciences. Both France and Japan are subject to natural disasters and benefit from an excellent and active research and numerous actors aiming to mitigate their impact. The purpose of this symposium is, for the main actors of this research landscape, to present their fields of research and their French-Japanese cooperation.

Monday, October 2nd, 2017

Symposium on French-Japanese cooperation on Disaster Risk Reduction

Auditorium of **Maison franco-japonaise (日仏会館)**

| Session | Time | | Presentation | Organism/Project | Speaker |
|---|-------|-------|--|---------------------------------------|-----------------------------------|
| <i>Chair:</i> Sébastien CODINA <i>Scientific Attaché, Embassy of France in Japan</i> | 10:00 | 10:10 | Welcome address | Bureau français de la MFJ – UMIFRE 19 | Cécile SAKAI |
| | 10:10 | 10:15 | Overview on French-Japanese cooperation on DRR | Embassy of France | Pierre FEUARDANT |
| | 10:15 | 10:35 | Sendai Framework for Disaster Risk Reduction | UNISDR Office in Japan | Yuki MATSUOKA |
| Risk identification and assessment | 10:35 | 10:55 | Observatories and monitoring systems | IPGP | Anne LE FRIANT |
| | 10:55 | 11:15 | Fluid circulations along the seismogenic zone: insights from natural examples and relationship with earthquake cycle | Universities of Kagoshima and Orléans | Yujin KITAMURA / Hugues RAIMBOURG |
| | 11:15 | 11:35 | Monitoring of slow earthquakes – Possible connection to huge earthquakes | ERI | Kazuhige OBARA |
| | 11:35 | 11:55 | Imaging, sampling and monitoring subduction seismogenic zone | JAMSTEC | Shuichi KODAIRA |
| | 11:55 | 12:15 | Effect of a weak periodic modulation on earthquakes | ENS Paris/ERI | Takahiro HATANO |
| | 12:15 | 12:35 | Ground Penetrating Radar (GPR) and its applications | Tohoku University / IPGS | Maksim BANO / Motoyuki SATO |
| | 12:35 | 12:55 | Tsunamis in the Atlantic and the English Channel - Definition of the effects through numerical modeling | TANDEM | Hélène HEBERT |
| | 12:55 | 13:10 | <i>Panel discussion and questions</i> | | |
| | 13:10 | 14:20 | <i>Lunch</i> | | |
| Urban risk and social impact | 14:20 | 14:40 | Landslides in urban residential slopes induced by strong earthquakes in Japan | BRGM / DPRI | Toshitaka KAMAI |
| | 14:40 | 15:00 | Can large cities be designed as earthquake shields? | IFSTTAR | Jean-François SEMBLAT |
| | 15:00 | 15:20 | Improving the seismic risk analysis for nuclear facilities safety | SINAPS@ | Catherine BERGE-THIERRY |
| | 15:20 | 15:40 | A cross-disciplinary approach to risk assessment and management in Univ Grenoble-Alpes | Univ. Grenoble Alpes | Sandrine CAROLY / Céline CHOLEZ |
| | 15:40 | 16:00 | Mediation Information system to support agility of crisis management | GéNéPi | Frédéric BENABEN |
| | 16:00 | 16:20 | <i>Coffee break</i> | | |
| <i>Chair:</i> Fumihiko IMAMURA <i>Director of IRIDeS</i> | 16:20 | 16:40 | Protection from nuclear disaster and production of knowledge: the Fukushima case | CNRS-Clersé-University Lille 1 | Thierry RIBAUT |
| | 16:40 | 17:00 | Disaster management and health emergencies | Mines Alès / University of Nîmes | Gilles DUSSE |
| | 17:00 | 17:20 | Lyon Urban School: new approaches to the urban vulnerability | University of Lyon | Michel LUSSAULT |
| | 17:20 | 17:40 | Tohoku University and IRIDeS role in Sendai Framework for DRR | Tohoku University/IRIDeS | Fumihiko IMAMURA |
| | 17:40 | 17:55 | <i>Panel discussion and questions</i> | | |
| | 17:55 | 18:00 | Closing remarks | Embassy of France | Sébastien CODINA |

Observatories and monitoring systems

10:35 – 10:55



Speaker

Prof. Anne LE FRIANT

Contact information

lefriant@ipgp.fr

0033183957636

0033619987039

Affiliation and position

Institut de Physique du Globe de Paris
Deputy Director in charge of Observatories

Abstract of speech

The Institut de Physique du Globe de Paris is a graduate university with research, teaching and observational missions. IPGP has four observatory networks and one data Center: 1/ The volcanological and seismological observatories monitor the three active volcanoes (La Soufrière of Guadeloupe, Montagne Pelée in Martinique, Piton de la Fournaise in La Réunion) and the West Indies permanent regional seismicity. 2/ The magnetic observatories provide ground-based geomagnetic observations and derived data products of the highest quality. 3/ GEOSCOPE provide validated, high quality broadband seismic data to the French and international seismological communities. 4/ The Observatory of Erosion in the Antilles (ObsERA) investigate chemical and physical erosion and investigate how extreme events influence geochemical and landscape morphology. 5/ The main mission of IPGP Data Center is to manage and to distribute geophysical data from IPGP to support the geophysical research community. The IPGP-ERI workshop will take place in Japan this year.

Fluid circulation along the seismogenic zone: insight from natural examples and relationship with earthquake cycle

10:55 – 11:15

Speakers

Yujin Kitamura

yujin@sci.kagoshima-u.ac.jp

University of Kagoshima

Hugues Raimbourg

hugues.raimboug@univ-orleans.fr

University of Orléans

Abstract of speech

This presentation will be about fluid circulation along the seismogenic zone and will examine natural examples and its possible relationship with earthquake cycle, notably on the Shimanto Belt in Japan.

This subject is the focus of a French-Japanese Sakura PHC in the framework of which the team made observations and took samplings in the field, in Japan.

Monitoring of slow earthquakes -Possible connection to huge earthquakes- 11:15 – 11:35

Speaker

Dr. Kazushige Obara
小原一成 博士

Contact information

obara@eri.u-tokyo.ac.jp
+81-3-5841-5660

Affiliation and position

**Director, Earthquake Research Institute, the
University of Tokyo**
東京大学地震研究所・所長

Abstract of speech

ERI is one of the largest research institutes focusing on solid Earth science in the world. In order to encourage international collaboration, ERI has concluded agreements with many organizations including IGP.

Based on the agreement between ERI and IGP firstly concluded in 2001, we have been holding joint workshops in every 2 years since 2009 and exchanging researchers/students.

ERI is also authorized by the government as a joint usage/research center of Japanese universities. One of important functions is the nationwide hub for realtime seismic data exchange among JMA, NIED and universities. Based on monitoring data from dense seismic observation networks, we detected many slow earthquakes surrounding megathrust earthquake seismogenic zone in southwest Japan. Because these slow earthquakes occur with the same shear faulting mechanism along the same plate interface, slow earthquakes might be related to huge earthquakes.

In this point of view, the monitoring of slow earthquakes is important.

Imaging, sampling and monitoring subduction seismogenic zone 11:35 – 11:55

Speaker

Dr. Shuichi Kodaira
小平 秀一 博士

Contact information

kodaira@jamstec.go.jp
+81- 45 – 778 - 5438

Affiliation and position

**Japan Agency for Marine-Earth Science and
Technology**
**Director, Research and Development Center for
Earthquake and Tsunami**

Abstract of speech

In order to understand seismogenic processes and to mitigate earthquake and tsunami hazards, JAMSTEC has been exploring subduction seismogenic zone with imaging, sampling and monitoring by means of a state-of-arts marine technology. A surprising result from seafloor and sub-seafloor imaging in the fault zone of the 2011 Tohoku-oki earthquake is a large trench breaching co-seismic fault slip. Cores sampled from the fault zone of the Tohoku-oki earthquake shows a very low dynamic frictional coefficient which is considered to be a cause of the observed large co-seismic slip. The Nankai Trough is intensively studied as another subduction seismogenic zone where great earthquake is anticipated. JAMSTEC constructed a cable-connected seafloor network (DONET) for monitoring earthquake and tsunami, and developed a tsunami early warning system. The DONET and borehole observatories connected to DONET provide a unique opportunity to monitor various fault slip behaviors which never have been observed by land network.

Effect of a weak periodic modulation on earthquakes

11:55 – 12:15



Speaker

Dr. Takahiro Hatano
波多野恭弘

Contact information

hatano@eri.u-tokyo.ac.jp
03 5841 1854

Affiliation and position

Associate Professor
Earthquake Research Institute, University of Tokyo

Abstract of speech

This French-Japanese joint research project is at the same time an interdisciplinary collaboration between statistical physics, seismology, and geodesy. The French PI is a nonlinear physicist at Ecole Normale Supérieure, and the Japanese PI (the presenter) is a statistical physicist at Earthquake Research Institute of the University of Tokyo. The other participants comprise geodesists and experimental seismologists including graduate students and postdocs.

Earthquake is a very complex natural phenomenon and therefore it is not surprising that we cannot predict its occurrence. However, there might be some precursory phenomena for large earthquakes: e.g. slow slip events and foreshocks. In this project, we focus on a yet different potential precursor: smaller earthquakes may synchronize with the tides only before some huge earthquakes. This phenomenon could be understood using some concepts in statistical physics: bifurcation and marginal stability), and therefore gives a perfect subject for interdisciplinary collaboration.

Ground Penetrating Radar (GPR) applications to active faults and seismic hazard studying

12:15 – 12:35



Speakers

Prof. Motoyuki Sato

佐藤 源之 教授

sato@cneas.tohoku.ac.jp

022 795 6075

Professor, Center for Northeast Asian Studies,
Tohoku University



Dr. Maksim Bano

maksim.bano@unistra.fr

0033 6 32598484

Maître de Conférences, Institut de Physique du
Globe, Strasbourg University

Abstract of speech

The Institute of Physics of the Earth of Strasbourg (IPGS) is one of the leading geophysics research laboratories in France. It is a joint research unit (UMR-7516) with the French National Centre for Scientific Research (CNRS) and is associated to the School and Observatory of Earth Sciences (EOST of Strasbourg University) with excellence in its Engineering School, its Master's degree, and its Observatories (with monitoring in seismology, magnetism, gravity, GPS geodesy, and geochemistry).

Center for Northeast Asian Studies (CNEAS) of Tohoku University has intensively investigated the methodologies and applications of radar technology for environmental studies. We have applied Ground Penetrating Radar (GPR) for monitoring environment in China, Russia, Mongolia and Korea. Applications include ground water survey, archaeological survey and geological survey.

In this cooperation we would like to combine the GPR method with paleoseismology and geomorphologic studies in order to characterize faults by identifying offsets of radar reflections and by imaging in 3D the buried fluvial channel deposits crossed by faults. Our study will be focused on application of GPR techniques to active faults with various slip sense such as normal, reverse, and strike-slip, or to faults that move in the past 100 years in the Holocene in Japan. Moreover, for the faults with low slip rates or under heavy human modifications, the geomorphic expressions are relatively obscured and the faults may be blind or hidden by young sediments. Therefore, identifying those faults is one of the keys to improve the seismic hazard assessment in Japan.

The TANDEM project (Tsunami in the Atlantic and the English Channel: Definition of the effects through numerical modelling)

12:35 – 12:55



Speaker

Dr. Hélène Hébert

Contact information

helene.hebert@cea.fr

+33 1 69 26 40 00

Affiliation and position

CEA, DAM, DIF, 91297 Arpajon, France

Abstract of speech

The presentation will focus on the main results of the TANDEM project (2014-2017) on tsunamis. In the aftermath of the Tohoku tsunami, the French government launched initiatives to better identify the tsunami hazard on French coastlines where nuclear facilities have been operated since about 30 years. TANDEM gathers geologists, geophysicists, numerical modelers in cooperation with Japanese scientists (MRI) to draw lessons from the 2011 tsunami and to propose hazards levels in France. The main topics addressed in the project is the validation of numerical models to characterize tsunami hazard, the influence of the uncertainties on the parameters used in the modeling, the lessons drawn from the Tohoku-oki tsunami (2011), through a detailed study of a coastal site in Japan, and the application of the methods on the French coastlines, in order to better estimate the effects of rare tsunamigenic sources (nearby landsliding, distant and local earthquakes).

The presentation will be followed the same week by a French-Japanese workshop held 4-5 October in Maison franco-japonaise. The main topics of TANDEM will be addressed during the workshop, and an additional session will be organized on the current challenges on Tsunami Warning in operational context (Japan / France). This workshop will provide the opportunity to solicit Japanese scientists to give presentations relevant to the topics of TANDEM and tsunami warning.

Landslides in urban residential slopes induced by strong earthquakes in Japan

14:20 – 14:40

Speaker



Toshitaka Kamai
釜井俊孝

Contact information

kamai.toshitaka.3z@kyoto-u.ac.jp
+81-774-38-4110

Affiliation and position

Professor
Head of Research Center on Landslides
DPRI, Kyoto University

Abstract of speech

Massive grading operations often resulted in inadequate compaction of fill materials creating dangerously soft and weak ground within cities throughout Japan. Plenty of landslides in the gentle residential slopes that are artificial valley fills have been induced by recent destructive earthquakes in urban regions, such as the 1978 Miyagiken-oki earthquake, the 1995 Kobe earthquake, and the 2011 Tohoku earthquake. These failures include: (1) failures of most or all of the valley fill; (2) lateral spreading associated with liquefaction; and (3) development of cracks along the cut and fill transition zones. Beyond the serious danger to residents of the earthquake affected areas, these landslides revealed the weaknesses of urban development in large cities of Japan. Thus, similar disasters could be repeated if large earthquakes occur near large cities. Considering risk mitigation against these landslides in residential lots, urban development should minimize artificial changes in landforms, especially avoiding valley fills.

BRGM (Bureau de Recherches Géologiques et Minières) and DPRI (Disaster Prevention Research Institute, Kyoto University) has been collaborating since 2009 in the field of seismic risk analysis. The collaboration started with exchange of researchers and lead to working together in several joint projects in Japan and France that resulted with many reviewed papers being published. In 2013, the two institutes signed a MoU (Memorandum of Understanding) to strengthen the collaboration, and collaboration in the field of natural hazards, such as landslides, tsunamis, erosion, have also started to taken place.

Can large cities be designed as earthquake shields?

14:40 – 15:00



Speaker

Dr Jean-François Semblat
Co-author: Dr Chiara Varone

Contact information

jean-francois.semblat@ifsttar.fr
+33688809116

Affiliation and position

Université Paris-Est, IFSTTAR
Dept Geotechnical Eng., Environment, Natural Hazards
and Earth Sciences (Deputy Head),
Earthquakes and Vibrations Lab. (Head)
(+ ESITC: Dr Varone)

Abstract of speech

The Department of Geotechnical Engineering, Environment, Natural Hazards and Earth Sciences of IFSTTAR performs researches in the fields of geotechnics, hydrology, earthquake engineering and seismology, environmental chemistry and geophysics.

From fault rupture, seismic waves are generated at depth and propagate up to the soil free surface as a so-called seismic ground motion. In urban areas, what can be designated as a free surface? What may be defined as the seismic ground motion?

Indeed buildings may be considered as secondary seismic sources. They may thus strongly interact with the incident seismic motion leading to large interferences depending on both the buildings and the soil properties. In dense urban areas, we have evidenced that such interactions may lead to an earthquake shield effect. This effect will be illustrated in the case of virtual as well as actual cities (e.g. Nice, Rome).

Several perspectives of these researches will be also discussed: urban planning, urban seismology, effects of deep foundations and liquefaction (Japanese-French collaboration).

Improving the seismic risk analysis for nuclear facilities safety

15:00 – 15:20



Speaker

Dr Catherine BERGE-THIERRY

Contact information

catherine.berge-thierry@cea.fr

+ 33 1 69 08 66 55

Affiliation and position

**Seismic Risk Expert at the French Atomic Energy
Commission**

SINAPS@ project Coordinator

Abstract of speech

The 2011 Tohoku earthquake and tsunami caused a severe accident at Fukushima Daiichi Nuclear Power Plant (NPP) and highlighted the importance of seismic margins assessment. A research project SINAPS@ (Earthquake and Nuclear Facilities: Improving and Sustaining Safety) is currently on going in France. SINAPS@ brings together a multidisciplinary community of French researchers and engineers from academic and nuclear worlds. SINAPS@ aims at exploring the uncertainties associated to databases, physical processes and methods used from seismic hazard, site effects, soil and structure interaction, structural and nuclear components vulnerability assessments: the objective is ultimately identifying the sources of potential seismic margins. Data from the Chuetsu-Oki earthquake recorded at Kashiwazaki-Kariwa NPP are used to test state-of-the-art practices and to challenge new methodologies for seismic risk assessment. SINAPS@ benefits from Japanese data (Kik-Net, PARI and TEPCO networks). The SEISM Institute (<http://www.institut-seism.fr/en/>) which built SINAPS@ also collaborates with DPRI, RIKEN AICS, CRIEPI NRRC and JCOLD.

The work carried out under the SINAPS@ project receives French funding managed by the National Research Agency under the program “Future Investments” (SINAPS@ reference No. ANR-11-RSNR-0022).

A cross-disciplinary approach to risk assessment and management in Univ Grenoble-Alpes

15:20 – 15:40



Speakers

Céline Cholez

Celine.Cholez@grenoble-inp.fr

+33 6 75 53 45 15

+33 4 76 47 46 39

Grenoble-inp Genie Industriel (France)

Pacte Laboratory- University of Grenoble (UGA)- France

Responsible for the MSH-Alpes project “Collective Risks, Vulnerability and Resilience »

Responsible of the RDT-MEDE Program “Resilience: from concept to action”

Sandrine CAROLY

Sandrine.caroly@univ-grenoble-alpes.fr

Department Risk Prevention- Polytech Grenoble- France

Pacte Laboratory- University of Grenoble (UGA)- France

Abstract of speech

Risks occupy a prominent place in the Grenoble-Alpes scientific community for a long time, particularly because of the natural and industrial challenges of the Alpine context. Two traditions characterize our approach: first, multi-disciplinarity, in particular between natural sciences, sciences for engineering and human and social sciences and secondly multifactorial perspective of risks that organizes a cross-fertilizing reflexion on risks assessment and management whatever the nature of the disruption. We emphasise an integrated approach of risks.

After mentioning the collaborations between the Alpine and Japanese universities, the presentation will briefly recall the scientific trajectories which today lead this scientific community to structure itself around a project of excellence aiming in the medium term to the construction of a multidisciplinary institute of risks. It will also present an example of a multidisciplinary approach to changes arising in a risk management associated to the notion of resilience.

Mediation Information System to support Agility of Crisis Management

15:40 – 16:00

Speaker

Professor Frederick Benaben



Contact information

frederick.benaben@mines-albi.fr

Phone: +33 563493297

Mobile phone: +33 683202308

Affiliation and position

Head of the research team “Interoperability of Organizations” (IO)

Industrial Engineering Center

IMT Mines Albi-Carmaux

Abstract of speech

The GÉNÉPi project is a French funded collaborative research project involving various academic, institutional and industrial partners. This project focused on methods and technology to support crisis management. This talk presents the results of the GÉNÉPi project on the domain of Information Systems and Information Technologies for Crisis Management. The presented research works aims at defining a design approach of Mediation Information System dedicated to support the collaboration of stakeholders and decision makers in crisis management context. This approach is based on both Business Process Management and Model-Driven Engineering. There are two main dimensions to this approach:

The first one is dedicated to collect, interpret and exploit data incoming from heterogeneous data sources (through the use of situation models). The second one is dedicated to deal with the life cycle of the collaborative situation (through the management of collaborative business process models). There is also a technology perspective that will be presented (based on service-oriented and event-driven architectures).

Some results of the GÉNÉPi project have already been presented in 2015 in Sendai during the FRONTIER workshop organized in Tohoku University.

Protection from nuclear disaster and production of knowledge: the Fukushima case

16:20 – 16:40

Speaker

Thierry RIBAUT

Contact information

thierry.ribault@univ-lille1.fr

Affiliation and position

**Researcher at National Center for Scientific
Research (CNRS-Clersé-University Lille 1)**

Abstract of speech

The French-Japanese scientific collaboration we developed from 2013 to 2016 with the Fukushima University and the Doshisha University in Kyoto, is organized around two actions that schematically fall within three fields: social/economic and epistemological. These are two ways of approaching the question that motivates us and prompts international and interdisciplinary collaboration in this research: vulnerability and various modalities of responses to it in terms of protection in the context of the Fukushima nuclear disaster. Our action n°1 is: Protection and Vulnerability: Public Policies and the Variety of Responses to Disaster. Our action n°2 is: Knowledge, Society, and Democracy After Fukushima.

Disaster management and health emergencies

16:40 – 17:00

Speaker

Pr Gilles DUSSERRE

Contact information

Gilles.dusserre@mines-ales.fr

Affiliation and position

Ecole des Mines d'Ales

Abstract of speech

Europe and Japan have made progress in preparing disasters and large scale emergencies, although gaps remain in some key areas (incident command, standardized approaches etc...).

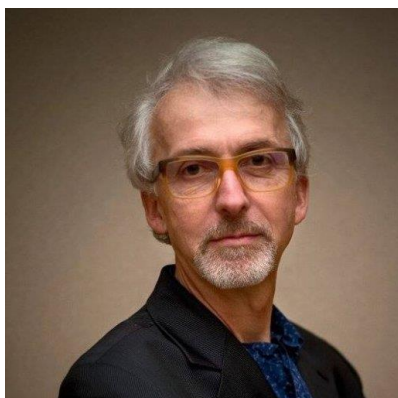
Moreover, a significant issue faced by front line responders has been the significant increase of the number and type of potential scenarios they must be prepared to handle. The workshop dedicated to Disaster management and health emergencies will try to handle some features of health emergency domains (lessons learnt, training, simulation, response of medical teams and humanitarian actions)

Lyon Urban School: new approaches to the urban vulnerability

17:00 – 17:20

Speaker

Michel Lussault



Contact information

michel.lussault@ens-lyon.fr
jan.matas@universite-lyon.fr

Affiliation and position

Université de Lyon
Director of the Lyon Urban School
Professor of the Ecole normale supérieure de Lyon

Abstract of speech

The Lyon Urban School is an experimental project headed up by the Université de Lyon, a public body clustering 4 public universities, 6 public higher education institutions and the CNRS at the scale of the Lyon-Saint-Etienne urban area. This project involves public institutions and schools as well as companies and associations and aims to face societal challenges laid out by global change and by the generalization of global urbanization by transforming the relationship between education, research and action.

For more information about the Lyon Urban School : <http://www.lyonurbanschool.fr/>

Universities' role for Sendai Framework on DRR: actions of IRIDeS, Tohoku University

17:20 – 17:40

Speaker



Prof. Fumihiko Imamura.

今村文彦 教授

Contact information

Imamura@irides.tohoku.ac.jp

81-22-752-2044

Affiliation and position

**Director of International Research Institute of
Disaster Science (IRIDeS)**

Abstract of speech

Having experienced the catastrophic disaster in 2011, Tohoku University has founded the International Research Institute of Disaster Science (IRIDeS). Based on the lessons from the 2011 Great East Japan (Tohoku) earthquake and tsunami disaster, IRIDeS aims to become a world centre for the study of the disasters and disaster mitigation, learning from and building upon past lessons in disaster management from Japan and around the world. Throughout, the IRIDeS will contribute to on-going recovery/reconstruction efforts in the affected areas, conducting action-oriented research, and pursuing effective disaster management to build sustainable and resilient societies. Since 2014, series of the tsunami and DRR innovations WS has been conducted in Japan and France to report and advance our understanding, mitigation and response to disasters caused by tsunami and other natural disasters.

Organizers:

- Embassy of France in Japan
- Bureau français de la MFJ – UMIFRE 19 (日仏会館フランス事務所)

Co-organizers:

- Fondation Maison franco-japonaise (公益財団法人日仏会館)

With the support of:

- Tohoku University - IRIDeS (International Research Institute of Disaster Science), FRI (Fracture and Reliability Research Institute) and CNEAS (Center for Northeast Asian Studies)

Workshop organizers and partners:

- AIST: National Institute of Advanced Industrial Science and Technology
- BRGM: Geological and Mining Research Bureau
- CEA: French Alternative Energies and Atomic Energy Commission
- CEREMA: National Center for Studies and Expertise on Risks, Environment, Mobility and Urban and Country Planning
- CHU (University Hospital Center) Grenoble Alpes
- CNRS: National Scientific Research Center
- Doshisha University
- GÉNÉPi: Granularity of the management levels in crisis context, ANR project which partners are the Ecole des Mines d'Albi, the CRICR, the CEREMA, the DDT45, the DREAL, EDF, InteropSys, the MTES and the University of Toulouse
- IFSTTAR: French institute of science and technology for transport, spatial planning, development and networks
- IMT: Institut Mines-Télécom
- IPGP: Paris Institute of Earth Physics
- IPGS: Strasbourg Institute of Earth Physics
- JAMSTEC: Japan Agency for Marine-Earth Science and Technology
- JMA: Japan Meteorological Agency
- Kagoshima University
- Kyoto University - DPRI (Disaster Prevention Research Institute)
- LIA HPRD: Joint International Laboratory on Human Protection and Response to Disaster between UMIFRE 19, Research Institute on Japan, CNRS, French Ministry of Foreign Affairs and University of Lille in France, University of Fukushima and University of Doshisha in Japan.
- RTRI: Railway Technical Research Institute
- SEISM Institute, a joint institute on seismic risk from Paris-Saclay University : CEA, EDF, CentraleSupélec, Ecole Normale Supérieure Paris-Saclay and CNRS
- TANDEM: Tsunamis in the Atlantic and the English Channel Definition of the Effects through numerical Modeling, ANR project which partners are: CEA, BRGM, EDF, Ecole des Ponts ParisTech, JMA, University of Pau, IRSN, SHOM, INRIA, IFREMER and PRINCIPIA
- The University of Lille – CLERSE (Lille Center for Research and Studies on Sociology, Economics)
- The University of Lyon
- The University of Nîmes
- The University of Orléans
- The University of Tokyo - ERI (Earthquake Research Institute) and AORI (Atmosphere and Ocean Research Institute)
- UMIFRE 19: Research Institute on Japan, CNRS, French Ministry of Foreign Affairs.
- United Nations Office for Disaster Risk Reduction (UNISDR) Office in Japan
- Univ. Grenoble Alpes
- Université Clermont Auvergne – LMV (Laboratory Magmas and Volcanoes)

Map from Maison franco-japonaise to the Résidence of France in Japan (accessible by taxi. 10mn, about 730 JPY for 4 persons)
Address : 4-11-44, Minami-Azabu, Minato-ku, Tokyo (The entrance is not the same as Embassy's one)

