Welcome to JKASP8! We are kindly inviting you who are interesting in geodynamics and disaster mitigation of Japan-Kuril-Kamchatka-Aleutian-Alaska subduction processes. This biennial unique workshop has been held at Petropavlovsk-Kamchatsky, Sapporo and Fairbanks in rotation with warm relation of North Pacific neighbors. You can make scientific reports and discussion of great earthquakes, tsunamis, volcanic eruptions, plate interaction and mantle dynamics emphasizing in North Pacific and surrounding regions thorough presentation and field excursion. Proposals for international and interdisciplinary projects are also welcoming. Disaster mitigation activity through international monitoring of earthquake, tsunami and eruption are also important target of JKASP. Borderless communication during this workshop will give clues to solve and make progress in science and disaster mitigation.

Steering committee:
Mitsuhiro Nakagawa, Hiroaki Takahashi, Sapporo, Japan
John Eichelberger, Pavel Izbekov, Fairbanks, Alaska, USA
Evgeny Gordeev, Victor Chebrov, Petropavlovsk-Kamchatsky, Russia

Registration: Sep. 22 9:00~ @Venue
- Registration fee: ¥22,000, $220
  (Student: ¥6,000, $60)
- Excursion fee: ¥18,000, $180

Venue:
Hokkaido University (HOKUDAI)
Faculty of Science Building No. 5
5-203 room (large lecture room)
- 15min walk from Sapporo station
- LOC is in ISV of science building No. 4
Session program:

22, September (Monday)
09:00  Registration
10:10  Opening remarks (Gordeev, Takahashi)

**Earthquakes and tectonics: Evgeny Gordeev, Hiroaki Takahashi**
10:20  Impacts of subduction great earthquakes to regional tectonics
10:40  Modeling of co-seismic ground motions caused by the 24 May, 2013 deep Okhotsk earthquake of Mw=8.3
11:00  Analysis of the far-field postseismic displacements in the south of the Russian Far East caused by the 2011 Great Tohoku earthquake inferred from continuous GPS observations
*Shestakov N., M. Gerasimenko, M. Ohta-Ohzono, H. Takahashi
11:20  The field of low-frequency seismic noise at Japan islands before and after Tohoku mega-earthquake on March 11, 2011
*Lyubushin, A.
11:40  Break
12:00  Spatial pattern of frictional characteristics on the subducting Pacific plate inferred from stress drops of middle-size earthquakes
*Saito, Y., *T. Yamada, Y. Tanioka
12:20  Reconstruction of the Tectonic Stress Field Before and After 2011 Great Tohoku Earthquake
*Polets A.
12:40  Empirical lows of aftershock sequencnes as indicator of rheology behaviors and stress state of geological medium with damages
*Konovalov A.
13:00  Lunch

**Earthquakes and tectonics: Saltykov Vadim and Maeda Takahiro**
14:00  Short periods strong motion attenuation characteristics of plate boundary large earthquake in Hokkaido
*Takai N.
14:20  Statistical approach to estimation of seismicity level making seismology accessible to society
*Saltykov V.
14:40  Finite-difference simulation of long-period ground motion for the Nankai Trough megathrust earthquakes
*Maeda T., N. Morikawa, S. Aoi, H. Fujiwara
15:00  Effect of heterogeneous seismic structure of frontal prism on coseismic megathrust slip distribution in trench axial zone, Japan Trench and other subduction zones
15:20  Break
15:40  Realtime seismic monitoring sytem in northern Sakhalin
*Stepnov A.
16:00  Seismic activity and code Q-1 deduced from longterm ocean bottom seismographic observation around the focal region of large earthquakes off Nemuro, Hokkaido, Japan
*Murai Y., R. Hino, Y. Ito, S. Suzuki, Y. Kaneda
16:20  Specification of tectonic tsunami sources along the eastern Aleutian Island Arc and Alaska Peninsula for inundation mapping and hazard assessment
*Suleimani E., D. Nicolisy, J. Freymueller, R. Koehler
16:40  Tsunami Hazard Estimation and Zoning Scheme for the Japan (East) Sea Coast using Observational Data
*Kaistrenko V., Y. Tanioka, B. H. Choi, H. J. Lee
17:00  Poster
18:00  Ice Breaker
23, September (Tuesday)

**Volcanism: Churikova Tatiana and Aoyama Hiroshi**

10:00 Fissure Eruption on Tolbachik Dol (FTE-50, Kamchatka, 2012-2013)


10:20 Petrology and geochemistry of the Tolbachik stratovolcano


10:40 Estimation of geological structure at Tolbachik Dol (Kamchatka) using low-frequency microseisms

*Kugaenko Y. V., Saltykov, A. Gorbatikov, M. Stepanova*

11:00 Japanese-Russian project of study Klyuchevskoy volcano (Kamchatka, Russia): First results of the geological and petrological investigations

*Bergal-Kuvikas O., M. Nakagawa, Y. Muravyev, N. Malik, A. Ovsyanikov, Y. Ishizuka, T. Hasegawa, S. Uesawa*

11:20 Break

11:40 Ultra-long period tilt signals observed at Klyuchevskoy volcano

*Takahashi H., H. Aoyama, T. Matsushima, H. Miyamachi, E. Gordeev, Y. Muravyev, S. Serovetnikov*

12:00 Dike opening inferred from tilt change prior to the small phreatic eruption of Meakan-dake volcano, Hokkaido, Japan in November 2008

*Aoyama H., H. Oshima*

12:20 Application of satellite and airborne InSAR to volcano deformation processes in the Pacific Rim


12:40 Recurrent sub-meter slope sliding of large block on buried Cenozoic calderas in Tohoku, Japan triggered by 2008 M7.2 and 2011 M9 earthquakes; Forerunners of Future Catastrophic Landslides?

*Murakami M., T. Abe, M. Furuya, S. Okuyama*

13:00 Lunch

**Volcanism: Nakagawa Mitsuhiro and Timina Tatiana**

14:00 Location estimation by the spatial distribution of seismic amplitudes: Volcanic tremors of the 2008 Meakandake eruption and debris flow on Izu-Oshima island on 16 October 2013

*Ogiso M., *Yomogida K.*

14:20 Change of the mode of eruptive activity since 20th century at Sakurajima volcano, Japan: Possible evidence for new magma entry into the magma plumbing system

*Nakagawa M., M. Amma-Miyasaka, A. Matsumoto, Y. Togashi, T. Kobayashi, M. Iguchi*

14:40 Numerical inversion of eruption source parameters from atmospheric tephra dispersal simulations and filed data

*Moiseenko K., N. Malik*

15:00 Eruption patterns of parasitic volcanoes

*Yokoyama l.,

15:20 Melt and fluid inclusion evidence of metasomatic alterations within the mantle wedge beneath Avacha volcano (Kamchatka, Russia)

*Timina T., A. A. Tomilenko, S. Z. Smirnov, D. V. Kuzmin*

15:40 Poster

24, September (Wednesday)

**Geochemistry: Nakamura Hitomi and Shakirov Renat**

10:00 Comprehensive method of studying changes in the composition, structure and properties of rocks under the influence of hydrothermal processes

*Shanina V., KK. Gerke, A. Bychkov, D. Korost, V. Funkova*

10:20 REEs compositions of non-volcanic Arima-type hot spring waters along the Median Tectonic Line: Possible origin from subducting slab

*Nakamura H., H. Iwamori, K. Chiba, Y. Fujita, S. Nakai, J. Kimura, Q. Chang, K. Kazahaya*

10:40 Hydrocarbon and other gases on Kurile island (past data and nowadays data)

*Shakirov R., U. Tsunogai, R. Zharkov*
11:00 Hydrochemical fluxes from Baransky volcano, Iturup, Kuril Island
   Chelnokov G., R. Zharkov, *I. Bragin, N. Kharitonova

11:20 Temporal changes in thermal waters related to volcanic activity of Tokachidake volcano, Japan
   *Takahashi R., T. Shibata, Y. Murayama, T. Ogino, N. Okazaki

11:40 Introduction to Taishetsu volcanic field
   *Ishige K., M. Nakagawa

26, September (Friday)

Status report and future programs from institutions and projects (tentative)

14:00 Institute of Seismology and Volcanology of Hokkaido University
14:15 Institute of Volcanology and Seismology of FEB-RAS
14:30 Institute of Tectonics and Geophysics of FEB-RAS
14:45 Institute of Marine Geology and Geophysics of FEB-RAS
15:00 Institute of Applied Mathematics of FEB-RAS and Far Eastern Federal University
15:15 Break
15:30 Sakhalin Branch of Geophysical Survey of RAS
15:45 Kamchatka Branch of Geophysical Survey of RAS
16:00 University of Alaska Fairbanks and Alaska Volcano Observatory
16:15 Jet Propulsion Laboratory
16:30 Japan-Russia re-inventing educational program project
16:45 Closing remarks (Nakagawa)
18:00 Farewell party for information exchange

Poster presentation:

Poster size is 90cm (width) by 180cm (height) vertically long.

22, September (Monday): 17:00-18:00: Available only from 15:00

P1-1 Earthquake prediction based on the synchronization of the high-frequency seismic noise with Earth
   tides
   *Saltykov V

P1-2 Slow strain waves in the Earth and their application to tectonic stress transfer
   *Bykov V.

P1-3 Long-Term Earthquake forecast for the Kuril-Kamchatka Arc for the Period from April 2014 to March
   2019
   Fedotov S., *A. Solomatín

P1-4 Waveform inversion of recent dispersive tsunamis using DART measurements near Japan, Kurils and
   Kamchatka
   *Loskutov A.

P1-5 Sedimentary characteristics of tsunami deposits in Okushiri island, southwestern Hokkaido, Japan
   *Kase Y., K. Nishina, K. Hayashi, G. Kawakami, K. Koshimizu, Y. Takashimizu, T. Watanabe, T.

P1-6 Possible source of tsunami deposits on Kamchatka coast of Bering Sea from tsunami modeling
   *Petukhin A., T. Pineguna, A. Lander, B. MacNess, Y. Tanioka

P1-7 Geological record of tsunami events in the northern Japan Sea
   *Kawakami G., Tsunami Deposits Survey Team of GSH

P1-8 Tsunami source of the 17th century great earthquake occurred in southern Kurile subduction zone
   estimated from tsunami deposit data
   *Ioki K., Y. Tanioka, Y. Nakamura

P1-9 Correlation of Simushir earthquakes 2006-2009 with the geophysical fields and block structure of the
   Central Kuril basement
   Kulinch R. G., *M. G. Valitov, Z. N. Proshkina

P1-10 Coseismic effect Gravity and GPS measurements at Far East Russia continental coast.
   Timofeev, B. Ducarme, T. Kolpashikova, Z. Proshkina
P1-11 Macroseismic and peak ground acceleration data of the May 24, 2013 (Mw8.3) Sea of Okhotsk deep earthquake

P1-12 Strong Motion Records of the 2006-2007 Great Earthquake Doublet in the Central Kurile Islands
*Shigefuji M., N. Takai, T. Sasatani, M. Ichiyanagi

P1-13 Borehole geophysical monitoring in Kamchatka: the results of geoacoustic and electromagnetic measurements prior to strong earthquakes
Ganilov V., Y. Buss, J. Vlasov, V. Denisenko, *Y. Morozzova, E. Poltavtseva, G. Ryabinin, O. Fedoristov

P1-14 Simulation of isoseismals of a large subduction zone earthquake taking into account pronounced anisotropy of attenuation
*Chebrov D., A. A. Gusev, V. N. Chebrov

P1-15 Plate motion of Ryukyu Arc, South-western Japan, derived by continuous GPS observation
*Nakao S., H. Yakiwara, S. Hirano, K. Goto

P1-16 The long-term time series of records on broadband seismic station in Kamchatka
*Kasimova V.A., G. N. Kopylova, L. N. Taranova

P1-17 Seismic monitoring for disaster
*Levin I.

P1-18 Measurements of inter-station phase speed and amplitude of surface waves toward high-resolution S-wave model in the Sea of Japan
*Hamada K., K. Yoshizawa

P1-19 Mantle anisotropy beneath the northwest Pacific from local deep earthquake
*Luneva M.

P1-20 Statical estimation of the seismicity level of Hokkaido island
*Voropaev P., H. Takahashi, V. Saltykov

P1-21 Improvement of the earthquake early warning system with wavefield extrapolation
*Sato A., K. Yamagida

P1-22 Potential approach to short-term and longterm prediction of strong earthquakes for example the Tohoku earthquake (Japan) 11 march 2011 with Mw=9.0
Shrikov V., P. Firstov, *E. Makarov, I. Stepanov, V. Stepanov

P1-23 Moderate repeating earthquakes off Kushiro, eastern Hokkaido, Japan

P1-24 How well does the ITRF2008 solution explain the current IGS site velocities observed by GNSS technique?
*Nechaev G., N. Shestakov, M. Gerasimenko

P1-25 Non-volcanic shallow low-frequency tremor activity at the shallow transition zone in the Hyuga-nada, southwestern Nankai Trough

P1-26 Source Characterization of The 1995 Neftegorsk Earthquake
*Poleta A., M. Raeesi

P1-27 Comparison of waveforms of the March 11 2011, Mw=9.0 Tohoku earthquake estimated from GPS and seismic data
*Pupatenco V.

P1-28 Seismic activity in southern Kuril trench by Japan-Russia joint seismic data (2010-2012)
*Ichiyanagi M., H. Takahashi, M. Valentin, I. Levin

P1-29 Perspectives of development the international tsunami early warning system along the Sea of Japan margins based on GPS/GLONASS technique
*Shestakov N., H. Takahashi, P. H. Park

P1-30 The relationship between intra-plate earthquakes and subsurface structures around Mitsuishi area, south-central Hokkaido: Possibility of unknown active faults
*Tamura M., S. Ohtsu, T. Suzuki

P1-31 Numerical simulation of migration of seismic activity (on the example of Kamchatka)
*Chetyrbotsky A. N.
23, September (Tuesday): 15:40-16:40

P2-1 Origin of the across and along arc geochemical variations of volcanic rocks from the Northern Kurile islands
*Bergal-Kuvikas O., M. Nakagawa, G. P. Avdeiko

P2-2 Geological map of Fuji Volcano, 2nd edition, central Japan: Implications for hazard assessment
*Ishizuka Y.

P2-3 Volcanoes of Kurile-Kamchatka islands arc information system for integration heterogeneous volcanological data
*Romanova I. M., O. A. Girina, A. P. Maximov, I. V. Melekestsev, S. E. Vasiliev

P2-4 Increase of Lava Within the Crater at Kirishima, Shinmoe-dake Volcano, Detected by DInSAR
*Miyagi Y., T. Ozawa, T. Kozono, M. Shimada

P2-5 Crustal deformation and seismic activation preceding the 2012-2013 fissure eruption at Tolbachik volcano Kamchatka
*Kugarenko Y., N. Titkov, V. Saltykov

P2-6 Teprostratigraphy in South Kurile Islands in the last 14 ka: Evaluation of eruptive activity on Kunashir and Iturup Islands
*Matsunoto A., N. Razhigaeva, M. Nakagawa

P2-7 Estimation of the sulfur dioxide emission by Kamchatka volcanoes using differential optical absorption spectroscopy
*Melnikov D., S. Ushakov, B. Galle

P2-8 Sr-Nd isotopic composition of Shiveluch volcanic massif (Kamchatka)
Gorbach N., M. Portnyagin, F. Hauff

P2-9 Relationship between Infrasound Signals and Plume Heights by the JMA’s Weather Radar, the Shinmoe-dake 2011 Eruption, Japan
*Takagi A., T. Shimbori, E. Sato, K. Fukui

P2-10 KLUCHEVSKOY VOLCANO CONTINUOUS TILTMETER OBSERVATIONS (RUSSIA).
*Serovetnikov S., H. Takahashi, E. T. Griti, E. F. Abkadyrov

P2-11 Gravity change due to volcanic inflation of Tokachi-dake, Hokkaido
*Okazaki N.

P2-12 Earth surface displacements and crustal deformations by GNSS data during the 2012-13 Tolbachik fissure eruption, Kamchatka
*Titov N., M. Maguskin

P2-13 Geodetic strain field around Kussharo Caldera, eastern Hokkaido, Japan
*Ohzono M., H. Takahashi

P2-14 Variations of seismicity level connected with the 2000-2012 eruptions of Bezymianny Volcano
Kuganenko Y., V. Saltykov, *P. Voropaev, A. Konovalova

P2-15 Absolute paleointensity determinations of welded tuffs correlated with widespread tephras in marine sediment cores

P2-16 Composition and Geochemical Characteristics of Volcanic Ash erupted during 2012-13 Tolbachik Fissure eruption
*Malik N., P. Izbekov

P2-17 Review of the volcanic scenarios of Tarumae Volcano based on the volcanic activity of 2013
*Nagayama H., M. Miyamoto, J. Fujimatsu, Y. Usui, J. Miyamura, Y. Fushiya

P2-18 Eruption of Kizimen volcano in 2009-2013 in seismic data and visual observations
Firstov P., *A. Shakirova

P2-19 Activity of Kamchatkan volcano in 2012-2013 and danger to aviation
*Girina O., A. Manevich, D. Melnikov, A. Nuzhdaev, Y. Demyanchuk

P2-20 Petrological and chronological study of primitive high-Mg andesite from monogenic volcanoes in the forearc region of northern Kamchatka Peninsula
*Nishizawa T., H. Nakamura, T. Churikova, B. Gordeychik, O. Ishizuka, H. Iwamori

P2-21 Geology and petrology of Taisetsu volcano group, Japan; Evolution of magma and long term time variation of eruption rate
*Ishige K., M. Nakagawa, A. Matsumoto

P2-22 Preliminary FEM analysis of the local deformation at Mt. Tokachi
*Okuyama S., H. Takahashi
P2-23  Local deformation around Mt. Usu detected by ALOS/PALSAR interferometry  
*Okuyama S., H. Oshima, M. Murakami

P2-24  Geologo-Geophysical Researches in Brouton Bay (Uratman Volcano, Simushir Isl., The Kurile Islands)  
*Veselov O. V., D. N. Kozlov

P2-25  Plagioclase lapilli and phenocrysts in the lavas of the 2012-2013 Tolachik Fissure eruption  
*Volynets A., D. Melnikov, I. Gribedova

P2-26  Composition of pyroxenes in Miocene-Quaternary basalts of the Sredinny Range of Kamchatka: Implications to the crystallization conditions  
Volynets A., G. Worner, A. Kronz, I. Gribedova, A. Babansky

P2-27  The finding of the tephra related with the formation of L'vinaya Past' caldera at the central part of Iturup island, southern Kunl  
*Nakagawa M., R. Furukawa, A. Matsumoto

Ice Breaker:
Ice breaker will be held on 22 Monday 18:00 at University’s central cafeteria (Chuo Shokudo) 2nd floor, one minute walk from venue.

Lunch:
You can use also university’s central cafeteria (Chuo Shokudo) 1st and 2nd floor. Restaurant Elm, situated north of cafeteria is also available. Small Kiosk selling drinks and snacks is operated in the cafeteria building.

Smoking:
Smoking room is situated 2nd floor of Bldg. 2 and entrance of Bldg. 2.

Farewell party for information exchange:
Farewell party will be held on 26 Friday 18:00 at KKR Hotel Sapporo: address is N4, W5; southern part of JR Sapporo station. About 20 min walk from venue. Participants will move there after the session end of 26 September.
Excursion:
Excursion will be at Taisetsu (Daisetsu) volcanic field in central Hokkaido in 24-25. You can see Active Asahidake volcano, the highest mountain in Hokkaido (2,291m) and explosive active craters with volcanic complex. Ropeway to middle flank of mountain is in operation. Participants who have good legs can cross mountain summit by a day trekking about 7-8 hours, and another participants will enjoy autumn fresh air in mountain region easily using ropeway. Weather will be to being cold, about less than 10 degrees temperature, and might be first snow. Participants who will try to climb up to the summit have to bring suitable shoes and waterproof clothes.
You can enjoy Japanese style accommodation and hot spring spa (ONSEN) at accommodation hotel. Participants will share a Japanese style room by 4 peoples.

http://www.tenninkaku.jp/english/ (Hotel information)

Tentative schedule:
09/24 Sapporo(12:00)-Ten’nikaku Hot Spring Hotel (17:00)
09/25 Fullday trekking course
   Hotel(05:30)-Ropeway_Station(06:30)-Asahidake(10:00)-Nakagake_Spa(12:30)-Ropeway_end(15:30)-Ropeway_station(16:00)-Sapporo(20:00)
Halfday trekking course
   Hotel(05:30)-Ropeway_station(06:30)-Trecking-Ropeway_station(09:30)-Asahikawa_city(13:00)-Sapporo(16:00)
Travel information:
Participants who will arrive and departure at New-Chitose (Sapporo) international airport, should use JR (Japan Railway) train transportation to/from Sapporo station. Rapid train “Airport” to Sapporo is operated every 15min. It takes about 40min to Sapporo, and fee is 1380JPYen. Be careful that final station of train is not Sapporo! Do not miss Sapporo station!
Participants should arrive at airport about 1 hour earlier of departure time, suggesting should take about 2 hour before train from Sapporo station. If you will use earlier flight from airport, you should use at least the first “Airport” rapid train which will depart 06:15 from Sapporo JR station.

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Weather condition:
September is the best season in Sapporo, comfortable daytime temperature of 18 degree, sunny and dry air and clear sky in early autumn.

Sponsorships:
This meeting will be supported by Institute of Seismology and Volcanology of Hokkaido University, Geological Survey of Hokkaido, Geodynamics project promoted by KAKENHI of JSPS-MEXT, bilateral joint research programs by JSPS.

Contact information:
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