

# JKASP-2018. Session Program

## August, 21 (Tuesday)

09:00 Registration

10:00 Opening

10:20 John C. Eichelberger. **JAPAN-KAMCHATKA- ALASKA-SUBDUCTION PROCESSES: A Memoir**

RECENT OR ONGOING VOLCANIC ERUPTIONS AND RECENT MAJOR EARTHQUAKES

Conveners: Alexander Belousov, Vadim Saltykov

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|--------------------|--|---|
| 10:40              | <a href="#">The VolSatView information system for monitoring and study Kamchatkan and Northern Kuriles volcanoes</a>   | *Girina O.A., Loupian E.A., Efremov V.Yu., Melnikov D.V., Manevich A.G., Sorokin A.A., Kramareva L.S., Uvarov I.A., Kashnitskiy A.V., Bourtsev M.A., Marchenkov V.V., Mazurov A.A., Malkovsky S.I., Romanova I.M., Korolev S.P.   |
| 11:00              | <a href="#">Recent strong earthquakes and system of seismic observations in Kamchatka</a>  | *Chebrov D.V., Kugaenko Yu.A., Abubakirov I.R., Voropaev P.V., Gusev A. A., Droznin D.V., Droznina S.Ya., Ivanova E. I., Kravchenko N.M., Lander A.V., Matveenko E.A., Mitushkina S.V., Ototuk D.A., Pavlov V.M., Raevskaya A.A., Saltykov V.A., Senyukov S.L., Serafimova Yu.K., Titkov N.N. |
| 11:20              | <a href="#">The July 17, 2017 Mw7.8 Earthquake in the Bering Fracture Zone: Dynamics of Foreshock-Aftershock Process</a>                                       | *Saltykov V., Kugaenko Yu., Voropaev P., Kravchenko N.  |
| <b>11:40 Break</b> |  |   |
| 12:00              | <a href="#">Magma and Extreme Geothermal: Венера на Земле</a>  | John Eichelberger   |
| 12:20              | <a href="#">Propagation velocities, viscosity, and internal structure of lava flows of the 2012-2013 eruption of Tolbachik volcano, Kamchatka</a>              | *Belousov A., Belousova M.  |
| 12:40              | <a href="#">Peculiarities of the activity of Klyuchevskoy and Shiveluch volcanoes IN 2000-2017 in connection with the seismic activity of Kamchatka region</a> | *Senyukov S.L., Shapiro N.M., Droznina S.Ya., Droznin D.V., Nuzhdina I.N., Garbuzova V.T., Kozhevnikova T.Yu., Nazarova Z.A., Sobolevskaya O.V., Bliznetov V.E.   |

13:00-14:00 Lunch

**Conveners: Evgeny Gordeev, Pavel Izbekov**

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| 14:00              | Clinopyroxene composition and melt inclusion constrains on the magma mixing and formation of the Menshiy Brat volcano magnesian basalts  | *Nizametdinov I.R., Kuzmin D.V., Smirnov S.Z., Timina T.Yu.                             |
| 14:20              | Mineralogy and melt inclusion constrains on pre-eruption crystallization history of dacites of the Lvinaya Past caldera eruptions (Iturup Island, Kuril Island arc)                              | *Maksimovich I.A., Smirnov S.Z., Kotov A.A., Timina T.Yu.                               |
| 14:40              | The behavior of volatile components (S, F, Cl) in dacitic magma of a large caldera eruption of the Vetrovoy Isthmus (Southern Kuriles) according to the results of the study of apatites         | *Kotov A.A., Smirnov S.Z., Maksimovich I.A., Timina T.Yu.                               |
| 15:00              | Inverse problem for the volcanic eruption source parameters in the case of extremely small grain-size data sets: a case study of explosion events at Kizimen and Bezymianny volcanoes, Kamchatka | *Moiseenko K.B., Malik N.A.   |
| <b>15:20 Break</b> |  |   |
| 15:40              | Spectral characteristics of the seismic signals used for ADAP (Automatic Detection of Ash Plume) program   | *Bliznetsov V.E., Senyukov S.L., Sobolevskaya O.V.                                      |
| 16:00              | Macroseismic manifestation of strong deep-focus earthquakes in the subduction zone of the northwestern part of the Pacific Ocean   | *Boginskaya N., Sevenova E.   |
| 16:20              | Convergence velocity between Amurian plate and north American plate estimated by GNSS at southern Sakhalin, Russia and northern Hokkaido, Japan  | *Ito Chihiro, Vasilenko Nikolay F., Prytkov Alexandr S., Takahashi Hiroaki, Ohzono Mako |

**16:40-17:40 Poster session**

***17:40-19:00 ICEBREAKER***

## **August, 22 (Wednesday)**

### **NEW RESULTS FROM TECTONIC, VOLCANOLOGICAL, SEISMOLOGICAL, AND MARINE RESEARCH**

**Conveners: Tatiana Churikova, Boris Gordeychik**

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|-------|---|--|
| 10:00 | Mesozoic-Cenozoic structures in gravity field and modified relief (as exemplified by Kamchatka, Baikal region and N-E USA)      | Dobretsov N.L., Vasilevskiy A.N.   |
| 10:20 | Network-Based Detection and Classification of Seismovolcanic Tremors: Example From the Klyuchevskoy Volcanic Group in Kamchatka | Shapiro N.M., Soubestre J., Seydoux L., de Rosny J., Droznin D.V., Droznina S.Ya., Senyukov S.L., Gordeev E.I. |
| 10:40 | Thinning of a Brittle Crust and Low-Magnitude Palaeoearthquakes along the Eastern Volcanic Front, Kamchatka                     | *Zelenin E., Kozhurin A.   |

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|--------------------|--|---|
| 11:00              | A FAST Data-Mining Approach for Similar Earthquake Detection   | *Spica Z., Yoon C., Beroza G., Bergen K., Rong K., Elezabi H., Bailis P., Levis P.  |
| <b>11:20 Break</b> |  |   |
| 11:40              | Magma feeding system of the Klyuchevskaya volcanic group   | *Gordeev E., Koulakov I., Shapiro N., Abkadyrov I., Sens-Schönfelder C., Lühr B., Weber M., Jakovlev A., Droznin D., Senyukov S.                  |
| 12:00              | A ~6 ma long record of major explosive eruptions from the Kurile-Kamchatka arc                                   | *Ponomareva V.V., Portnyagin M.V., Derkachev A.N., Bazanova L.I., Bubenshchikova N.V., Zelenin E.A., Rogozin A.N., Plechova A.A., Gorbarenko S.A. |
| 12:20              | Constraints on the shallow magmatic system in the southern part of Klyuchevskoy volcanic group from seismic data | Kugaenko Yu.  |
| 12:40              | Geological background and geodynamic mechanism of Mt.Changbai volcanoes on the China-Korea border                | *Liu Jiaqi, SS Chen, ZF Guo, WF Guo, HY He, HT You, HM Kim, GM Sung, H. Kim   |

### 13:00-14:00 Lunch

**Conveners: Tatiana Pinegina, Andrey Kozhurin**

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|--------------------|---|--|
| 14:00              | Tsunami Inundation Modeling and Mapping in Alaska   | *Nicolosky D.J., Suleimani E.N., West M.A.   |
| 14:20              | Inundation limits of the 2011 Tohoku-Oki tsunami and inland limits of the tsunami deposits  | Nishimura Yuichi   |
| 14:40              | Paleotsunami deposits and buried erosional scarps from co-seismic subsidence along Avachinsky bay coast (Kamchatka)   | *Pinegina T.K., Bazanova L.I., Bourgeois J., Kozhurin A.I., Zelenin E.A., Vydrin D.S.            |
| 15:00              | Reconstruction of earthquakes and tsunamis in the Japan Sea using sedimentary deposits in the Primorye coast, Russia: implication from numerical modeling       | *Sugawara D., Nishimura Y., Takashimizu Y., Razjigaeva N.G., Ganzey L.A., Lebedev I., Borisov R. |
| <b>15:20 Break</b> |   |  |
| 15:40              | Compositional variations in lavas of the Klyuchevskaya group (Kamchatka): evidence for changing source compositions in a highly productive subarc mantle wedge? | *Churikova T., Gordeychik B., Wörner G., Flerov G.   |
| 16:00              | Combined U-Th-disequilibrium and (U-Th)/He dating of zircon – a reliable tool for dating young volcanic systems   | Danišík Martin   |
| 16:20              | Dynamical models for subduction zone processes in NE Japan incorporating fluid-rock interactions  | *Iwamori H., Nakamura H., Horiuchi S., Nishizawa T., Sasajima R., Shibasaki B.                   |
| 16:40              | Distribution of volcanic eruptions in size for the purpose of study of mechanisms of magma aggregation in the earth's lithosphere and hazard prediction         | Ivanov V.V.  |

17:00-18:00 Poster session

## August, 23 (Thursday)

### NEW RESULTS FROM TECTONIC, VOLCANOLOGICAL, SEISMOLOGICAL, AND MARINE RESEARCH

Conveners: Nikolai Shestakov, Hiroki Miaymachi

|                    |  |  |
|--------------------|--|--|
| 10:00              | Overview of temporary seismic networks on active volcanoes of Kamchatka (Russia)   | *Jakovlev A., Koulakov I., Abkadyrov I., Shapiro N., Kuznetsov P., Deev E., Gordeev E., Chebrov V. |
| 10:20              | Temporal changes of seismic structures beneath active volcanoes inferred from repeated seismic tomography studies (cases Nevado del Ruiz, Galeras and Mt. Spurr)   | *Koulakov Ivan, Vargas Carlos, West Michael  |
| 10:40              | Stratigraphical study on the pyroclastic flow deposits including a Middle Pleistocene marker tephra of Shiobara-Otawara (So-OT) tephra, the southern Northeast Japan: Recognition of So-OT with major and trace elements of glass shards | Yamada M., Suzuki T., Albert P.G., Smith V.C., Tomlinson E.L.                                      |
| 11:00              | Petrological studies on the Quaternary magmatism in the northern Sredinny range  | *Nishizawa T., Nakamura H., Churikova T., Gordeychik B., Ishizuka O., Iwamori H.                   |
| <b>11:20 Break</b> |  |  |
| 11:40              | Sr-Nd isotopic composition of Neogene-Quaternary volcanic rocks of the Sredinny Range, Kamchatka: implications for magma generation in the back-arc  | *Volynets A., Kostitsyn Yu., Pevzner M., Goltsman Yu., Perepelov A.                                |
| 12:00              | Fast ascend of basaltic magmas from 7600 BP eruption of Shiveluch  | *Gordeychik B., Churikova T., Kronz A., Sundermeyer C., Simakin A., Wörner G.                      |
| 12:20              | Generation of calc-alkaline magma controlled by water content of primary magma at Rishiri Volcano, southern Kuril arc  | * Taniuchi Hajime, Kuritani Takeshi, Nakagawa Mitsuhiro  |
| 12:40              | Garnet-pyroxenite-derived end-member magma type in Kamchatka: the case of the Kekuknaisky volcano  | *Nekrylov N., Popov D.V., Plechov P.Yu., Shcherbakov V.D., Danyushevsky L.V., Dirksen O.V.         |

**13:00-14:00 Lunch**

**Conveners: Yuri Taran, John Eichelberger**

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| 14:00              | Place and role of amphibole in processes of large-scale siliceous volcanism in island arcs: case study of Late Pleistocene caldera eruptions of the Iturup Island (Kurile islands) | *Smirnov S.Z., Timina T.Yu., Maksimovich I.Yu., Kotov A.A., Rybin A.V., Kruk N.N., Kuzmin D.V.   |
| 14:20              | Composition and crystallization conditions of olivine-phyric rocks from Kamchatsky Mys peninsula   | *Korneeva A.A., Nekrylov N.A., Savelyev D.P., Portnyagin M.V., Zelenski M.E., Kamenetsky M.B., Krasheninnikov S.P., Shcherbakov V.D.                   |
| 14:40              | Modeling Compressibility and Pressure Changes in a Magma Chamber prior to the 2006 eruption of Augustine Volcano, Alaska   | *Wasser Valerie, Lopez Taryn, Izbekov Pavel, Freymueller Jeff, Anderson Kyle   |
| 15:00              | Volcanic gas emissions from the Kuril island arc: geochemistry and fluxes  | *Taran Yuri, Kalacheva Elena, Zelenski Mikhail, Chaplygin Ilya, Malik Natalia, Melnikov Dmitri, Campion Robin, Kazahaya Ryunosuke, Voloshina Ekaterina |
| <b>15:20 Break</b> |  |  |
| 15:40              | Formation of hydrothermal-sedimentary nb-ree mineralization in the Tomtor complex (Arctic Siberia, Russia): signatures of biotic contribution                                      | Dobretsov N., *Zhmodik S., Lazareva E., Ponomarchuk V., Tolstov A.   |
| 16:00              | Variability of deep seated fluid observed by rare earth elements along Median Tectonic Line  | Nakamura H., Iwamori H., Chang Q., Morikawa N., Kazahaya K., Takahashi M., Tanimizu M.   |
| 16:20              | Regional long term crustal deformation characteristics in northeast Asia continent due to great earthquakes and interseismic coupling along northwestern Pacific subduction zones  | *Takahashi H., Ohzono M., Ito C., Shestakov N., Gerasimenko M., Vasilenko N., Prytkov A., Meng G.  |
| 16:40              | Relationship between infrasound-derived and buoyancy-derived eruption cloud volume estimates   | *Taishi Yamada, Hiroshi Aoyama, Hideki Ueda  |

**17:00-18:00 Poster session**

## August, 26 (Sunday)

### GROUND-, AIR-, AND SATELLITE-BASED TECHNIQUES OF MONITORING OF ONGOING GEOLOGICAL PROCESSES

**Conveners: Olga Girina, Viktor Pupatenko**

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|-------|---|--|
| 10:00 | The retrieval of volcanic ash parameters from satellite data  | *Filei A.A., Rublev A.N.   |
| 10:20 | Models of Volcanic Ash Propagation for the Exploration of Explosive Eruptions of Kamchatka Volcanoes                            | *Malkovsky S.I., Sorokin A.A., Korolev S.P., Girina O.A., Loupian E.A. |
| 10:40 | A 40-year photogrammetric analysis reveals changing eruption style and dome to cone transition at Bezymianny Volcano, Kamchatka | *Shevchenko A.V., Mania R., Walter T.R., Dvigalo V.N., Svirid I.Yu.    |

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| 11:00              | Fluid geochemistry as tool to discover geothermal fields, trace metals, oil&gas reserves and hazardous faults | *Quattrocchi Fedora, Gallo Francesco, Boschi Enzo  |
| <b>11:20 Break</b> |   |  |
| 11:40              | 3-D Acoustic Multipole Inversion at Yasur Volcano, Vanuatu  | *Alexandra M. Iezzi, David Fee, Keehoon Kim, Arthur D. Jolly, Robin S. Matoza, Bruce Christenson |
| 12:00              | GNSS in tsunami early warning systems: can the M~7 earthquakes be processed?                                  | Pupatenko V.V.   |
| 12:20              | Volcanic activity and hydrology in Kamchatka  | Kuksina L.V.   |
| 12:40              | Petrology of the 2016 eruption of Pavlof volcano, Alaska: Insights on the magma plumbing system               | *Izbekov P.E., Waythomas C.F., Larsen J.F., Lopez T.M., Evdokimova N.A                           |
| 13:00              | Mineralogy and thermometry of deep xenoliths from the Kharchinsky volcano (Central Kamchatka depression)      | Sekisova V., Smirnov S., Kuzmin D., Shevko A., Gora M.   |

### 13:20-14:20 Lunch

Discussions, workshop groups meetings

### 17:00 -21:00 FAREWELL DINNER

## POSTER PRESENTATION:

### August 21, Sessions 1 and 2

16:40-17:40: Available from 15:00

|      |   |   |
|------|---|---|
| P1-1 | Characteristic seismic signal before the 2014 flank eruption at Stromboli volcano, Italy  | Aoyama H., Kondo G., Nishimura T., Ripepe M., Lacanna G., Genco R., Kawaguchi R., Yamada T., Miwa T., Fujita E. |
| P1-2 | Retrospective Forecasting of the Onset Time of the March 24, 2017 Eruption at Kambalny Volcano (Kamchatka) Based on a Comparison of the Solar-daily Rhythm and its Parts of the Global and Regional Earthquakes | Dubrovskaya I.K., Shirokov V.A.   |
| P1-3 | Successful prediction of the strong Zhupanovskoe earthquake (MW7.2) based on the multi-instrumental borehole measurements   | Gavrilov V., Buss Yu., Lander A., Morozova Yu., Panteleev I.  |
| P1-4 | Overview of the 2016-2018 eruption activity of Ebeko volcano (Kurile Islands)   | Kotenko T.A., Sandimirova E.I.  |
| P1-5 | 2016-2017 explosive eruptions of Kamchatka volcanoes based on KVERT data  | Manevich A., Girina O., Melnikov D., Nuzhdaev A.  |

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| P1-6  | Relation between ground deformation and plume discharge after the phreatic eruption in 2014 at Mt.Ontake, central Japan  | Narita S., Murakami M.   |
| P1-7  | The effect of postseismic relaxation induced by large earthquakes around northeast Asia  | Ohzono M., Takahashi H., Shestakov N.V., Meng G., Gerasimenko M.D.                                     |
| P1-8  | Tilt and volumetric strain change observed around Lake Akan at NOVEMBER 24, 2016   | Okuyama S., Takahashi H., Miyagi Y., Aoyama H., Ohzono M., Okazaki N., Akita F., Miyamoto M., Saito K. |
| P1-9  | The stress change of Nobi earthquake area before and after the Tohoku-oki Earthquake   | Susukida Y., Katsumata K.  |
| P1-10 | Three-dimensional resistivity structure beneath the crater of Tokachidake  | Tanaka R., Yamaya Y., Tamura M., Hashimoto T., Okazaki N., Takahashi R., Mogi T.                       |
| P1-11 | Monitoring of the Klyuchevskaya volcanic group using technics of Statistical Estimate of Seismicity Level (SESL'09)  | Voropaev P.V., Kugaenko Yu,A., Saltykov V.A.   |
| P1-12 | The eruption at Kusatsu-Shirane volcano on 23 January, 2018, observed by V-net of the NIED   | Taishi Yamada, Hideki Ueda, Toshikazu Tanada   |
| P1-13 | Monitoring of volcanic activity in the Kurile Islands: SVERT group - 15 years  | Chibisova M.V., Rybin A.V., Degterev A.V   |
| P2-1  | Seismological data informational system of Kamchatka Branch of Geophysical Survey of RAS in 2018   | Chebrova A., Chemarev A., Matveenko E., Tokarev A.   |
| P2-2  | Seismic activity under Klyuchevskoy volcano as the trigger of endogenous-exogenous processes activization on its slopes  | Cherkashin R., Dubrovskaya I., Muravyev Ya.  |
| P2-3  | Plinian eruptions of Zavaritsky caldera complex (Simushir Island, Central Kurules) as a source for ultradistal tephra found in deep-sea sediments of Okhotsk Sea | Dirksen O.V., Rybin A.V., Pletchov P.Yu.   |
| P2-4  | Features of migration of seismic and volcanic activity in the ocean-continent transition zone  | Dolgaya A.   |
| P2-5  | Preliminary results of the molecular hydrogen registration at the Petropavlovsk-Kamchatsky geodynamic test site  | Makarov E., Firstov P.   |
| P2-6  | Analysis of the continuous seismic data from the Klyuchevskoy volcano group  | Galina N.A., Shapiro N.M., Smirnov V.B., Droznin D.V., Droznina S.Ya., Senyukov S.L., Gordeev E.I.     |
| P2-7  | Mainshock-Aftershock Clustering in Volcanic Regions  | Garza-Giron Ricardo  |
| P2-8  | Volcanic eruption tremor: comparison with plume heights and application of a fluvial seismology model  | Gestrich J., Fee D., Haney M., Tsai V., Van Eaton A.   |

# August 22, Session 2

17:00-18:00: Available from 15:00

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| P2-9  | Submeridional and sublatitudinal faults in the structure of the lithosphere in Priamurye  | Gilmanova G., Merkulova T., Tusikova S.   |
| P2-10 | Small but important: New data about activity and composition of Zarechny volcano (Central Kamchatka depression)   | Gorbach Natalia, Ponomareva Vera, Pendea Florin, Portnyagin Maxim   |
| P2-11 | Selfsimilarity parameters of aftershock sequences   | Kartceva T.I.   |
| P2-12 | Variations in the parameters of background seismic noise  | Kasimova V.A., Kopylova G.N., Lyubushin A.A.  |
| P2-13 | Fluid and melt slab-derived components in the sources of Avachinsky group of volcanoes  | Krashennnikov S.P., Portnyagin M.V., Bazanova L.I., Perepelov A.B.  |
| P2-14 | 2017-2018 seismic activization of Udina volcanic massif (Kamchatka, Klyuchevskoy volcanic group)  | Kugaenko Yu., Saltykov V., Voropaev P., Konovalova A.   |
| P2-15 | Volcán Poás, Costa Rica, a low mercury degassing system   | Kushner D.S., de Moor J.M., Martinez Cruz M., Avard G., Rojas Marin J. F., Herrera Murillo J., Armstrong D., McLagan D., Wania F., Lean D., Wang F. |
| P2-16 | Seismic refraction and wide-angle reflection experiment in southern Kyushu, Japan - the 2017 exploration report   | Hiroki Miyamachi and Research Group for Crustal Velocity Structure in south Kyushu  |
| P2-17 | Tsunami Inundation Modeling and Mapping in Alaska: Case Studies   | Nicolisky D.J., Suleimani E.N., West M.A.   |
| P2-18 | A technique for calculation of an optimum double couple tensor using regional broadband seismograms   | Pavlov V.M., Abubakirov I.R.  |
| P2-19 | First results of the complex $^{14}\text{C}$ and $^{230}\text{Th}/\text{U}$ dating of organic matter in the reference sections of the Late-Middle Pleistocene loose sedimentary deposits of the Central Kamchatka | Pevzner M., Maksimov F., Petrov A., Grigoriev V., Nechushkin R., Karimov T.   |
| P2-20 | Recent Geodynamics of the Kuril Subduction Zone   | Prytkov A., Vasilenko N., Frolov D.   |
| P2-21 | An olivine-melt thermometer based on $D_{\text{Ni}}$ , with no dependence on $\text{H}_2\text{O}$ in the melt: new experimental evidence  | Pu X., Moore G.M., Touran J.P., Gagnon J.E., Lange R.A.   |
| P2-22 | Reconstruction of tectonic stresses in the mantle under the territory of Primorye   | Safonov D.A.  |
| P2-23 | Tidal Variations of Seismic Noise as Earthquake Precursors: Monitoring and Results in 2013-2018   | Saltykov V., Kugaenko Yu., Volovich O., Voropaev P.   |
| P2-24 | Platinum group element and sulfide melts in oceanic picrite lavas from Kamchatsky Mys peninsula (Kamchatka, Russia)   | Savelyev D.P., Kamenetsky V.S., Danyushevsky L.V., Botcharnikov R.E., Portnyagin M.V.   |



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| P2-25 | Informational field of SB FRC GS RAS observational system  | Shchukin M., Kostylev D., Semenova E.                                     |
| P2-26 | Postseismic displacements and deformations in Primorye invoked by the great 2011 Tohoku earthquake: results of 7 years of continuous GNSS-observations | Shestakov N., Gerasimenko M., Sysoev D., Meng G., Takahashi H., Ohzono M. |
| P2-27 | Tsunami sediment deposition on coastal lowland over a sand dune: Examples from present and historical deposits in Japan                                | Takashimizu Yasuhiro  |
| P2-28 | Ichinsky volcano: two types of melts in the minerals of 4200 14C eruption  | Tolstykh M., Pevzner M., Volynets A., Babansky A.                         |
| P2-29 | Chronology and petrogenesis of volcanic rocks from the Wudalianchi area, Northeast Asia  | Zhang B., JQ Liu  |

## August 23, Sessions 3 and 4

17:00-18:00: Available from 15:00

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| P3-1 | Organization of heterogeneous remote sensing data management for near real-time volcanic activity monitoring and analysis with the VOLSATVIEW Information System                  | Burtsev M., Girina O.A., Kramareva L., Loupian E., Sorokin A., Uvarov I.                                   |
| P3-2 | Development of hardware-software complex for registration the atmospheric electric potential gradient   | Budilov D.I., Akbashev R.R., Firstov P.P.  |
| P3-3 | The satellite monitoring and forecasting of volcanic clouds distribution  | Filei A.A., Sukhanova V.V., Amelchenko Yu.A.   |
| P3-4 | The 25 <sup>th</sup> anniversary of Kamchatkan volcanic eruption response team  | Girina O.A., Gordeev E.I., Melnikov D.V., Manevich A.G., Nuzhdaev A.A., Romanova I.M.                      |
| P3-5 | Application of an Updated Atmospheric Model to Explore Infrasound Propagation of Explosive Eruptions in Alaska  | Alexandra M. Iezzi, Hans F. Schwaiger, David Fee, Matthew M. Haney   |
| P3-6 | Satellite data interactive analysis tools in the VOLSATVIEW volcanoes monitoring system   | Kashnitskiy A., Burtsev M., Girina O.A., Loupian E., Zlatopolsky A.  |
| P3-7 | Software platform for volcano video monitoring  | Korolev S.P., Romanova I.M., Girina O.A., Sorokin A.A., Malkovsky S.I., Urmanov I.P.                       |
| P3-8 | Petrology of Late Miocene to Early Pleistocene volcanic rocks in Takikawa district, Central Hokkaido: Temporal and spatial variation of magma at Kuril- NE JAPAN arc-arc junction | Enoeda R., Nakagawa M.   |
| P3-9 | Mineralogy of salty crusts covering basalt walls in the "duplex" lava tube of Tolbachik volcano (Kamchatka arc)   | Malutina A., Zhitova L., Kamenetsky V., Belousov A., Sharygin V., Zelensky M., Abersteiner A., Zakharov S. |

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| P3-10 | Correlation of the satellite and video data for operative monitoring of volcanic activity in Kamchatka                        | Melnikov D., Manevich A., Girina O.  |
| P3-11 | Spatial Data Infrastructure for information support of volcanological investigations  | Romanova I.M., Girina O.A.   |
| P3-12 | Tiltmeter observation in Avachinsky volcano, Kamchatka  | Takahashi H., Aoyama H., Ohzono M., Miyamachi H., Yamashita Y., Matsushima T., Watanabe S., Gordeev E., Muravyev Y., Maguskin K., Minorov I., Malik N., Chebrov D. |
| P3-13 | Computer methods and algorithms for processing images of volcanoes  | Urmanov I.   |
| P3-14 | Development of the automatic system for measuring sulfur dioxide (SO <sub>2</sub> ) emission on active volcanoes in Kamchatka | Ushakov S., Melnikov D.  |
| P3-15 | Gold- and copper-bearing salt crusts in lava tubes of Tolbachik volcano (Kamchatka arc)                                       | Zhitova L., Kamenetsky V., Belousov A., Sharygin V., Zelenski M., Malutina A., Abersteiner A., Zakharov S.   |
| P3-16 | Perspectives of GNSS-techniques application for early tsunami warning in the Kuril-Kamchatka Region                           | Shestakov N., Nechaev G., Titkov N.  |
| P3-17 | Vertical Ground Deformation of Ioyama, Kirishima Volcanoes Measured by Precise Leveling Survey                                | Shimizu H., Morita K., Koga Y., Matsushima T.  |
| P4-1  | Geological and structural location of the Yagodninsky hydrothermal-magmatic system  | Boykova I.A.   |
| P4-2  | Solute fluxes from the volcano-hydrothermal system of the Kuril island arc (Russia)   | Kalacheva E., Taran Yu., Kotenko T.A., Voloshina E.V.  |
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| P4-5  | Long term geochemical monitoring of volcanic gases in active volcanoes in Hokkaido, Japan                                     | Ohmori K., Takahashi R., Ogino T., Murayama Y.   |