2018 年度（平成 30 年度）

研究部門名　　地球科学研究部門

講座名　　　　地球内部科学講座

教員名　　　　服部　克巳

電子メール　　hattori 理 earth.s.chiba-u.ac.jp

（1）研究論文などのリスト（印刷中を含む）

	著者・発表者等	タイトル	発表雑誌・会合等	巻・号	頁	発行・発表年等	掲載論文の DOI（付与されている場合）
1.　著書							
(1)	Dimitar Ouzounov, Sergey Pulinets, <u>Katsumi Hattori</u>, Patrick Taylor	Pre-Earthquake Processes: A Multidisciplinary Approach to Earthquake Prediction Studies	Wiley		pp. 414	2018 年 7 月	
2.　原著論文（査読あり）							
(1)	史海霞, 孟令媛, 张雪梅, 常莹, 杨振涛, 谢蔚云, <u>服部克巳</u>, 韩鹏	汶川地震前的b値変化	地球物理学報 (Chinese Journal of Geophysics) (in Chinese)	61(5)	pp. 1874-1882	2018 年 5 月	10.6038/cjg2018M0024
(2)	<u>Katsumi Hattori</u> and Peng Han	Statistical Analysis and Assessment of Ultralow Frequency Magnetic Signals in Japan As Potential Earthquake Precursors	Pre-Earthquake Processes: A Multidisciplinary Approach to Earthquake Prediction Studies, edited by Ouzounov et al.		pp. 229-240	2018 年 7 月	10.1002/9781119156949.ch13

(3)	Jann-Yenq Liu, <u>Katsumi Hattori</u>, and Yuh-Ing Chen	Application of Total Electron Content Derived from the Global Navigation Satellite System for Detecting Earthquake Precursors	Pre-Earthquake Processes: A Multidisciplinary Approach to Earthquake Prediction Studies, edited by Ouzounov et al.		pp. 305-317	2018 年 7 月	10.1002/9781119156949.ch17
(4)	Dimitar Ouzounov, Sergey Pulinets, Jann-Yenq Liu, <u>Katsumi Hattori</u>, and Peng Han	Multiparameter Assessment of Pre-Earthquake Atmospheric Signals	Pre-Earthquake Processes: A Multidisciplinary Approach to Earthquake Prediction Studies, edited by Ouzounov et al.		pp. 339-359	2018 年 7 月	10.1002/9781119156949.ch20
(5)	Xiaocan Liu, <u>Katsumi Hattori</u>, Peng Han, Huaran Chen, Yoshino Chie, Xudong Zhao	Possible anomalous changes in solar quiet-day geomagnetic variations (Sq) related to the 2011 off the Pacific coast of Tohoku earthquake (Mw 9.0)	Pure and Applied Geophysics		pp. 1-14	2019 年 1 月	10.1007/s00024-018-02086-z
(6)	周媛媛, 常莹, 陈浩, 周勇, 马永辉, 谢成良, 何展翔, <u>服部克巳</u>, 韩鹏	基于参考台的盲源分离法在抑制地磁场近场噪音中的应用研究	地球物理学報 (Chinese Journal of Geophysics) (in Chinese)	62 (2)	pp. 572-586	2019 年 2 月	10.6038/cjg2019M0551
(7)	Weiyun Xie, <u>Katsumi Hattori</u>, Peng Han	Temporal variation and statistical assessment of b value off the	Entropy	21(3), 249	pp. 1-10	2019 年 3 月	10.3390/e21030249

		Pacific coast of Tokachi, Hokkaido, Japan				

3. 原著論文・proceedings （査読なし）

(1)	Hao Chen, Naoki Koizumi, Chie Yoshino, <u>Katsumi Hattori</u>, Peng Han, Touru Mogi, Mao Okuda, Kotaro Sugano, Midori Hayakawa, Shinya Sakanaka	Effective noise reduction of magnetotelluric data observed in Boso Peninsula	日本大気電気学会誌	92(12-1)	pp. 165-166	2018 年 10 月	
(2)	齊藤央, 吉野千恵, <u>服部克巳</u>	イオノゾンデデータ(1958～2017)を用いた地震による電離圏異常の統計解析	日本大気電気学会誌	92(12-1)	pp. 177-178	2018 年 10 月	
(3)	謝蔚云, <u>服部克巳</u>, 韓鵬	十勝沖における b 値を用いた前震活動の監視	日本大気電気学会誌	92(12-1)	pp. 179-180	2018 年 10 月	
(4)	大村潤平, 吉野千恵, <u>服部克巳</u>, 下道國, 小西敏春, 古屋隆一	千葉県旭市における地震予測のための大気電気学的パラメータの観測:変動の特徴と信号弁別	日本大気電気学会誌	92(12-1)	pp. 241-242	2018 年 10 月	
(5)	石川彩香, 吉野千恵, <u>服部克巳</u>, 寺嶋智巳, 浅野志穂	自然電位法を用いた斜面下の地下水動態の推定:水槽実験と室内人工斜面水路実験	日本大気電気学会誌	92(12-1)	pp. 243-244	2018 年 10 月	

4. 総説・解説等

    なし

（２）卒業研究、大学院修士および博士論文修了指導人数

- ・卒業研究　　　　３　名
- ・大学院修士　　　０　名
- ・大学院博士　　　０　名

（３）教育業績（自己申告、テキストの作成など、授業の工夫など）

普遍：教養コアE（くらしと環境）「電磁気で地球を見る」、コア科目「地域の地学的背景を知る」

学部：地球科学演習，卒業研究，地球科学基礎セミナー、地球物理学Ⅱ，情報地球科学Ⅰ，
　　　　情報地球科学Ⅱ，地球物理学実験Ⅰ，地球物理学実験Ⅱ、地球科学英語

大学院修士課程：地球物理学ⅣB，特別演習Ⅰ，特別研究Ⅰ、地球環境科学専攻特別講義Ⅰ

大学院博士課程：地球物理学ⅤB，特別演習Ⅱ，特別研究Ⅱ、地球環境科学専攻特別講義Ⅰ

（４）国際会議出席と招待リスト

	会議名・日時・場所	著者	タイトル
1	Meeeting on International Space Science-Bern project #375, 2018/4/5, Bern, Switherland	Katsumi Hattori, Shinji Hirooka, and Mustafa Yagmur	Development of GNSS tomography for ionospheric electron density
2	European Geosciences Union General Assembly 2018, 2018/4/13, Vienna, Austria	Katsumi Hattori, Peng Han, and Jiancang Zhuang	Assessment of ULF geomagnetic precursor for short-term earthquake forecast
3	European Geosciences Union General Assembly 2018, 2018/4/13, Vienna, Austria	Katsumi Hattori, Jumpei Omura, Chie Yoshino, Michikuni Shimo, Toshiharu Konishi, and Ryuichi Furuya	Observation of Atmospheric Parameters for Short-term Earthquake Forecast at Kanto, Japan: Characteristics of Rn Variation and Signal Separation
4	European Geosciences Union General Assembly 2018, 2018/4/13, Vienna, Austria	Dimitar Ouzounov, Sergey Pulinets, Katsumi Hattori, and Patrick Taylor	Cross-disciplinary observations of Pre-Earthquake processes: A new approach towards Earthquake prediction studies
5	European Geosciences Union General Assembly 2018, 2018/4/10, Vienna, Austria	Dimitar Ouzounov, Sergey Pulinets, Lou Lee, Giampaolo Guiliani, Ching-Chou Fu, Vassilis Karastathis, Kanaris Tsinganos, Menas Kafatos, George Eleftheriou, and Katsumi Hattori	Radon activity – the hidden driver behind pre-earthquake anomalies in the Earth atmosphere-ionosphere environment
6	International Space Science-Beijing Team meeting	Hattori, K., Hirooka, S.,	GNSS tomography for ionospheric electron

	on "Lithosphere–Atmosphere–Ionosphere–Magnetosphere Coupling (LAIMC)", 2018/5/7 – 5/10, Beijing, China	Saito, S., Yagumur, M., and Liu, JY	density distributio estimation
7	International Conference for the Decade Memory of the Wenchuan Earthquake with The 4th International Conference on Continental Earthquakes and The 12th General Assembly of the Asian Seismological commission, May 14, 2018, Chengdu, Sichuan, China	Katsumi Hattori, Shinji Hirooka, Mustafa Yagmur, Sanaka Saito, Chie Yoshino, and Jann–Yenq Tiger Liu	Spatial and Temporal Characteristics of the Pre–Seismic Ionospheric Anomaly over Japan: Case study for the 2011 Off the Pacific Coast of Tohoku Earthquake (Mw9.0) and statistical study
8	International Conference for the Decade Memory of the Wenchuan Earthquake with The 4th International Conference on Continental Earthquakes and The 12th General Assembly of the Asian Seismological commission, May 14, 2018, Chengdu, Sichuan, China	Xie weiyun, Katsumi Hattori, Han Peng	Decrease in b–value prior to the 2003 Tokachi–oki earthquake (M8.0), Japan
9	International Conference for the Decade Memory of the Wenchuan Earthquake with The 4th International Conference on Continental Earthquakes and The 12th General Assembly of the Asian Seismological commission, May 14, 2018, Chengdu, Sichuan, China, (Invited)	Dimitar Ouzounov, Sergey Pulinets, Tiger Liu, Katsumi Hattori, Peng Han, and Menas Kafatos	Satellite support for the multidisciplinary short–term forecasting based on the LAIC physical concept
10	International Conference for the Decade Memory of the Wenchuan Earthquake with The 4th International Conference on Continental Earthquakes and The 12th General Assembly of the Asian Seismological commission, May 14, 2018, Chengdu, Sichuan, China	Garry de la Pomerai, Dimitar Ouzounov, Tun Wang, Sergey Pulinets, and Katsumi Hattori	Testing new technologies for early warnings and short–term forecasting of large earthquakes. The complexity of the new challenges
11	International Conference for the Decade Memory of the Wenchuan Earthquake with The 4th International Conference on Continental Earthquakes and The 12th General Assembly of the Asian Seismological commission, May 12, 2018, Chengdu, Sichuan, China	SHI Hai–Xia, HAN Peng, CHANG Ying, YANG Zhen–Tao, XIE Wei–Yun, ZHANG Xue–Mei, and HATTORI Katsumi	Decrease in b value prior to the Wenchuan earthquake (Ms 8.0)
12	International Conference for the Decade Memory of the Wenchuan Earthquake with The 4th International Conference on Continental Earthquakes and The 12th General Assembly of the Asian Seismological commission, May 14, 2018, Chengdu, Sichuan, China	Yuanyuan Zhou, Peng Han, and Katsumi Hattori	Principal component analysis of geomagnetic field changes associated with the 2011 Tohoku earthquake (Mw 9.0)
13	International Symposium on Earthquake Forecast / 5th International Workshop on Earthquake Preparation Process – Observation, Validation,	Peng Han, Katsumi Hattori, and Jiancang Zhuang	On the precursory information in ULF seismo–electromagnetic phenomena

	Modeling, Forecasting – (ISEF-IWEP5), 2018/5/25, Chiba University, Chiba, Japan, (Invited)		
14	International Symposium on Earthquake Forecast / 5th International Workshop on Earthquake Preparation Process – Observation, Validation, Modeling, Forecasting – (ISEF-IWEP5), 2018/5/26, Chiba University, Chiba, Japan, (Invited)	Dimitar Ouzounov, Sergey Pulinets, and Katsumi Hattori	Multi-parameter assessment of preearthquake atmospheric/ionospheric signals and their potential for short-term prediction
15	International Symposium on Earthquake Forecast / 5th International Workshop on Earthquake Preparation Process – Observation, Validation, Modeling, Forecasting – (ISEF-IWEP5), 2018/5/26, Chiba University, Chiba, Japan, (Invited)	Valerio Tramutoli, Alexander Eleftheriou, Carolina Filizzola, Nicola Genzano, Katsumi Hattori, Mariano Lisi, Rossana Paciello, Fillippos Vallianatos, and Nicola Pergola	Evaluating the impact of RST-TIR Satellite Observations on a multi-parametric system for time-Dependent Assessment of Seismic Hazard (t-DASH): a long term Correlation Analysis over California, Greece, Italy, Japan, Taiwan and Turkey.
16	International Symposium on Earthquake Forecast / 5th International Workshop on Earthquake Preparation Process – Observation, Validation, Modeling, Forecasting – (ISEF-IWEP5), 2018/5/25-27, Chiba University, Chiba, Japan	Xiaocan Liu, Katsumi Hattori, Peng Han, and Huaran Chen	Possible geomagnetic Sq abnormal related to great earthquake
17	International Symposium on Earthquake Forecast / 5th International Workshop on Earthquake Preparation Process – Observation, Validation, Modeling, Forecasting – (ISEF-IWEP5), 2018/5/25-27, Chiba University, Chiba, Japan	Sanaka Saito, Chie Yoshino, Katsumi Hattori, and Peng Han	Statistical analysis of pre-seismic ionospheric electron density anomalies using ionosonde data, over Japan
18	International Symposium on Earthquake Forecast / 5th International Workshop on Earthquake Preparation Process – Observation, Validation, Modeling, Forecasting – (ISEF-IWEP5), 2018/5/25-27, Chiba University, Chiba, Japan	Junpei Omura, Peng Han, Chie Yoshino, Katsumi Hattori, Michikuni Shimo, Toshiharu Konishi, and Ryuichi Furuya	Characteristics of Atmospheric Parameter Changes at Boso Peninsula, Japan ~Observational Study to Understand Lithosphere-Atmosphere-Ionosphere Coupling~
19	International Symposium on Earthquake Forecast / 5th International Workshop on Earthquake Preparation Process – Observation, Validation, Modeling, Forecasting – (ISEF-IWEP5), 2018/5/25-27, Chiba University, Chiba, Japan	Ayaka Ishikawa, Tomohiro Yamzaki, Chie Yoshino, Katsumi Hattori, Qinghua Huang, Tomomi Terajima, Hirotaka Ochiai, and Shiho Asano	Experimental Study on the Electro-Kinetic Effect ; Self-potential approach to monitor groundwater condition under the slope for rainfall-induced landslide forecast
20	International Symposium on Earthquake Forecast / 5th International Workshop on Earthquake Preparation Process – Observation, Validation, Modeling, Forecasting – (ISEF-IWEP5),	Mogi, T., M. Okuda, M. Hayakawa, K. Sugano, N., Koizumi, K. Hattori, C. Yoshino, P. Han and H.	MT survey in the source reason of SSEs in Boso peninsula, Central Japan – improving noisy data by ICA and three dimensional resistivity modeling –

	2018/5/25-27, Chiba University, Chiba, Japan	Chen	
21	International Symposium on Earthquake Forecast / 5th International Workshop on Earthquake Preparation Process - Observation, Validation, Modeling, Forecasting - (ISEF-IWEP5), 2018/5/25-27, Chiba University, Chiba, Japan	Weiyun Xie, Katsumi Hattori, Peng Han, and Haixia Shi	Decrease in b-value prior to the 2003 Tokachi-oki earthquake(M8.0), Japan and the 2008 Wenchuan earthquake(M8.0), China
22	International Symposium on Earthquake Forecast / 5th International Workshop on Earthquake Preparation Process - Observation, Validation, Modeling, Forecasting - (ISEF-IWEP5), 2018/5/25-27, Chiba University, Chiba, Japan	Katsumi Hattori, Shinji Hirooka, Mustafa Yagmur, Sanaka Saito, Chie Yoshino, and Jann-Yenq Tiger Liu	Spatial and Temporal Characteristics of the Pre-Seismic Ionospheric Anomaly over Japan: Case study for the 2011 Off the Pacific Coast of Tohoku Earthquake (Mw9.0) and statistical study
23	15th Annual Meeting for Asia Oceania Geosciences Society (AOGS2018), 2018/6/4, Hawaii Convention Centre, Honolulu, Hawaii, US	Chie YOSHINO, Jumpei OMURA, Peng HAN, Katsumi HATTORI, Michikuni SHIMO, Toshiharu KONISHI, and Ryuichi FURUYA	Multi-Channel Singular Spectrum Analysis of Atmospheric Parameter Data to Understand Lithosphere-Atmosphere-Ionosphere Coupling at Asahi Station, Boso Peninsula, Japan
24	15th Annual Meeting for Asia Oceania Geosciences Society (AOGS2018), 2018/6/7, Hawaii Convention Centre, Honolulu, Hawaii, US	Katsumi HATTORI, Hao CHEN, Naoki KOIZUMI, Chie YOSHINO, Peng HAN, Mao OKUDA, Midori HAYAKAWA, Toru MOGI, and Shinya SAKANAKA	Noise Reduction of MT Data with Multi-Channel Singular Spectral Analysis (MSSA)
25	15th Annual Meeting for Asia Oceania Geosciences Society (AOGS2018), 2018/6/6, Hawaii Convention Centre, Honolulu, Hawaii, US	Katsumi HATTORI, Shinji HIROOKA, Mustafa YAGUMUR, Sanaka SAITO, Chie YOSHINO, and Jann-Yenq LIU	Spatial and Temporal Characteristics of the Pre-Seismic Ionospheric Anomaly over Japan: Case Study for the 2011 off the Pacific Coast of Tohoku Earthquake (Mw9.0) and Statistical Study
26	15th Annual Meeting for Asia Oceania Geosciences Society (AOGS2018), 2018/6/6, Hawaii Convention Centre, Honolulu, Hawaii, US	Peng HAN, Katsumi HATTORI, and Jiancang ZHUANG	On the Quantification and Optimization of Forecasting Efficiency of Non-Seismic Observations
27	15th Annual Meeting for Asia Oceania Geosciences Society (AOGS2018), 2018/6/7, Hawaii Convention Centre, Honolulu, Hawaii, US	Peng HAN, Yuanyuan ZHOU, Katsumi HATTORI, and Qinghua HUANG	Blind Source Separation of ULF Electromagnetic Signals by Using Independent Component Analysis
28	16th International Conference on Atmospheric Electricity (ICAE2018), 2018/6/18, Nara Kasugano International Forum / IRAKA, Nara city, Nara, Japan	Katsumi Hattori, Kaori Oyama, Chie Yoshino, and Ryuichi Furuya	Atmospheric electricity changes possibly related around the 2011 off the Pacific coast of Tohoku Earthquake
29	16th International Conference on Atmospheric Electricity (ICAE2018), 2018/6/18, Nara Kasugano International Forum / IRAKA, Nara city, Nara, Japan	Junpei Omura, Peng Han, Chie Yoshino, Katsumi Hattori, Michikuni Shimo, Toshiharu Konishi, and	Characteristics of Atmospheric Parameter Change at Asahi Station, Boso Peninsula, Japan ~Observational Study on Lithosphere-Atmosphere-Ionosphere

		Ryuichi Furuya	Coupling ~
30	Electro-Magnetic Studies of Earthquakes and Volcanoes 2018 (EMSEV2018), 2018/9/17-21, the Archeological Museum "Dino Adamesteanu" in the Sala del Campanile, Potenza, Italy	Haruna Kojima, Junpei Omura, Chie Yoshino, Katsumi Hattori, Michikuni Shimo, Toshiharu Konishi, Ryuichi Furuya, Kiyotaka Ninagawa, and Dimitar Ouzounov	Atmospheric Parameter Measurements for Earthquake Forecast at Kanto, Japan: Case studies for regional earthquakes and the 2018 Boso Slowslip Event
31	Electro-Magnetic Studies of Earthquakes and Volcanoes 2018 (EMSEV2018), 2018/9/21, the Archeological Museum "Dino Adamesteanu" in the Sala del Campanile, Potenza, Italy	Katsumi Hattori and Peng Han	Statistical Analysis and Assessment of ULF Magnetic Signals in Japan as Potential Earthquake Precursors
32	Electro-Magnetic Studies of Earthquakes and Volcanoes 2018 (EMSEV2018), 2018/9/17-21, the Archeological Museum "Dino Adamesteanu" in the Sala del Campanile, Potenza, Italy	D. Ouzounov, S.Pulinets, LC. Lee, CC Fu, V.Karastathis, K. Tsinganos, M. Kafatos, N. Hatzopoulos, G.Eleftheriou, and K.Hattori	Experimental study of Radon activity associated with pre-earthquake phenomena observed in the Earth atmosphere-ionosphere environment
33	Electro-Magnetic Studies of Earthquakes and Volcanoes 2018 (EMSEV2018), 2018/9/17-21, the Archeological Museum "Dino Adamesteanu" in the Sala del Campanile, Potenza, Italy	D. Ouzounov, S. Pulinets, J.Y. Liu, K. Hattori, and P. Han	Multi-parameter assessment of pre-earthquake atmospheric-ionospheric signals and their potential for short-term prediction
34	The 3rd International Workshop of CSES Mission, 16-18 Nov. 2018, Beijing, China	Katsumi Hattori, Shinji Hirooka, Mustafa Yagmur, Sanaka Saito, Chie Yoshino, Rui Song, Jann-Yenq Liu	Statistical analysis of pre-seismic Ionospheric electron density anomalies using GPS-TEC and ionosonde data, over Japan
35	2018 AGU Fall Meeting, 2018/12/10, Walter E. Washington Convention Center, Washington, D.C., USA	Katsumi Hattori, Chie Yoshino, Weiyun Xie, Sanaka Saito, Peng Han, Toru Mogi, Tadanori Goto, Ichi Takumi, Tadashi Takano, Motoaki Mouri, Masashi Kamogawa, Chihiro Yamanaka, Yoshiaki Ando, Jun Izutsu, Dimitar Ouzounov, Valerio Tramutoli, and Jann-Yenq. Liu	Multi-sensor network for monitoring earthquake precursors and preparation processes near subduction zone at Boso, Japan
36	2018 AGU Fall Meeting, 2018/12/10, Walter E. Washington Convention Center, Washington, D.C., USA	Sanaka Saito, Chie Yoshino, Katsumi Hattori, and Peng Han	Statistical Analysis of Pre-seismic Ionospheric Electron Density Anomalies Using Ionosonde Data during 1958-2017, Over Japan (Highlighted)

| 37 | 2018 AGU Fall Meeting, 2018/12/10, Walter E. Washington Convention Center, Washington, D.C., USA | Patrick T. Taylor, Dimitar Ouzounov, Sergey A Pulinets, Katsumi Hattori, and Menas Kafatos | A Joint Satellite and Ground-Based Study of Temporal-Spatial Evolution Patterns of Pre-Earthquake Signals Associated With Major Earthquakes |

招待講演リスト

	会議名・日時・場所	著者	タイトル
1	第 59 回 CPD 科学技術講演会, 2018/4/21, 千葉市ビジネス支援センター きぼーる 15 階 多目的室, 千葉県千葉市, (Invited)	服部克巳	巨大地震発生短期予測の可能性追求－地象天気予報を目指して－
2	International Conference for the Decade Memory of the Wenchuan Earthquake with The 4th International Conference on Continental Earthquakes and The 12th General Assembly of the Asian Seismological commission, May 14, 2018, Chengdu, Sichuan, China, (Invited)	Dimitar Ouzounov, Sergey Pulinets, Tiger Liu, Katsumi Hattori, Peng Han, and Menas Kafatos	Satellite support for the multidisciplinary short-term forecasting based on the LAIC physical concept
3	日本地球惑星科学連合 2018 年大会, 2018/5/24, 幕張メッセ, 千葉県千葉市, (Invited)	韓鵬, 服部克巳, 周媛媛, 常瑩	Principle component analysis of geomagnetic data associated with the 2011 Tohoku earthquake (Mw 9.0)
4	日本地球惑星科学連合 2018 年大会, 2018/5/24, 幕張メッセ, 千葉県千葉市, (Invited)	Tramutoli Valerio, 服部克巳, Genzano Nicola, Filizzola Carolina, Lisi Mariano, Paciello Rossana, and Pergola Nicola	The contribution of Satellite TIR Surveys to the short-term time-Dependent Assessment of Seismic Hazard (t-DASH): a decadal (2005-2015) study over Japan
5	International Symposium on Earthquake Forecast / 5th International Workshop on Earthquake Preparation Process – Observation, Validation, Modeling, Forecasting – (ISEF-IWEP5), 2018/5/25, Chiba University, Chiba, Japan, (Invited)	Peng Han, Katsumi Hattori, and Jiancang Zhuang	On the precursory information in ULF seismo-electromagnetic phenomena
6	International Symposium on Earthquake Forecast / 5th International Workshop on Earthquake Preparation Process – Observation, Validation, Modeling, Forecasting – (ISEF-IWEP5), 2018/5/26, Chiba University, Chiba,	Dimitar Ouzounov, Sergey Pulinets, and Katsumi Hattori	Multi-parameter assessment of preearthquake atmospheric/ionospheric signals and their potential for short-term prediction

	Japan, (Invited)				
7	International Symposium on Earthquake Forecast / 5th International Workshop on Earthquake Preparation Process – Observation, Validation, Modeling, Forecasting – (ISEF-IWEP5), 2018/5/26, Chiba University, Chiba, Japan, (Invited)		Valerio Tramutoli, Alexander Eleftheriou, Carolina Filizzola, Nicola Genzano, <u>Katsumi Hattori</u>, Mariano Lisi, Rossana Paciello, Fillippos Vallianatos, and Nicola Pergola		Evaluating the impact of RST-TIR Satellite Observations on a multi-parametric system for time-Dependent Assessment of Seismic Hazard (t-DASH): a long term Correlation Analysis over California, Greece, Italy, Japan, Taiwan and Turkey.
8	北京大学 Special Seminer, 2018/11/20, Peking University, Beijing, China, (Invited)		<u>K. Hattori</u>		Develoment of rainfall-induced landslide monitoring: In-situ observation at Tokushima, Japan and Indonesia

（５）新聞や雑誌等で報道された研究成果等（報道媒体，報道年月日，報道内容等）

なし

（６）国際並びに国内学会での受賞（賞名，その内容，受賞理由等）

なし

（７）国際共同研究（共同研究名，研究内容等）

所属	職名	氏名	共同研究名	研究内容	年度
地球	教授	服部克巳	台湾における電磁気学的アプローチによる地震活動監視に関する研究	台湾・国立中央大学を中心とする台湾との国際共同研究。電離圏電子数と地震との関連を地上・衛星、シミュレーション等から多角的に研究している。H30年度は中央大学の劉教授が5月と10月，H31年2月に千葉大学に滞在し、共同研究を実施した。	30
地球	教授	服部克巳	地上観測および衛星観測による地球物理学（地球電磁気学）的な地殻活動の監視とそのモデリング	イタリアとの国際共同研究で斜面崩壊や地震・火山予測などがテーマである。H27年度にバシリカータ大学と部局間協定を締結するとともに、同大学よりNicola GENZANO博士をJSPS外国人研究員として迎え(H28年11月まで)、衛星データを用いた地震予測について共同研究を行った。H30年度は5月にTramutoli教授が千葉大を訪問し、共同研究を実施した。またGenzano博士滞在時の成果を学会等で共同で発表した。	30
地球	教授	服部克巳	衛星・地上観測による短期地震予測手法の開発プログラム	米国・チャップマン大学との共同研究。衛星データや地上観測データによる短期地震予測研究／地圏—大気圏—電離圏結合に関する研究を実施している。H30年度はOuzounov博士が5月に千葉大学を訪問し、共同研究をおこなった。	30

地球	教授	服部克巳	電磁気学的アプローチによる地震・斜面崩壊の監視・予測とそのモデリング	中国北京大学を中心とする中国との共同研究。地上や衛星で観測された地球物理データに対して、地震や斜面崩壊などに先行する現象を抽出し、監視予測するための早期警戒装置を開発する。またそのために物理機構の解明を行っている。H30年度は5月に北京大学の黄教授、中国地震局のShen博士、張博士が研究室を訪問し、斜面崩壊や衛星を用いた地震予測に関する議論を行った。10月には北京大学の博士課程の院生を受け入れ、斜面崩壊に関する共同研究を実施した。また、11月に中国国家地震局のShen博士、北京大学の黄教授を訪問し、それぞれ中国の地震電磁気衛星観測計画およびに地下水流動に推定に関する議論を行った。また、H30年10月から地震局の張博士のところで修士の学位をとった院生を博士院生として受け入れた。H31年3月に服部が中国南方科学技術大学を訪問し、研究打ち合わせを実施した。	30
地球	教授	服部克巳	インドネシアにおける地殻活動の短期予測を目的とした地震電磁気現象観測プログラム	インドネシア気象庁およびインドネシア科学院を中心とした国際共同研究。インドネシアで斜面崩壊、およびULF帯磁場変動観測を実施している。H30年度は前年度に引き続き共同観測を実施した。また、バンドン工大のWahyudi Parnadi博士をH30年9月-10月に1ヶ月間受け入れた。	30
地球	教授	服部克巳	地殻活動に関連する電磁気現象に関する研究	ロシアとの国際共同研究。地震に先行する電磁気現象のうちULF帯の磁場変動に注目し、その観測のための機材の開発、観測点の設置、データ解析を行い、その物理機構を解明し、地震活動を監視・予測するための手法について研究を行う。H30年度はPulinets博士らと研究打ち合わせを行った。またIZMIRANのKopytenko教授グループと磁場観測の打ち合わせを実施した。	30

（8）地域・社会と連携した教育・研究活動，学会、国、県などへの協力，など

平成12年〜 ：日本学術会議 電波科学研究連絡委員会E分科会委員

平成13年〜：地球電磁気学研究連絡委員会地磁気観測小委員会・委員

平成17年7月〜24年6月，25年7月〜：日本大気電気学会：運営委員

平成24年7月〜25年6月，日本大気電気学会：会計監査委員

平成21年6月〜平成24年5月：電気学会自然災害軽減のための早期警戒システムと電磁界技術調査専門委員会・委員長

平成24年10月〜平成27年9月：電気学会電磁界を用いた自然災害軽減のための観測・予測・解析技術調査専門委員会・委員長

平成26年10月〜：日本地震予知学会：副会長

平成27年4月〜平成29年3月：日本大気電気学会会長

平成18年4月〜：EMSEV委員 (Member of Inter Association Working Group on Electromagnetic Studies of Earthquakes and Volcanoes. IUGG)

主催会議・セミナー

平成13年～：地震電磁気セミナー主催 2019年2月末日現在 71回開催

所属学会：電気学会，電子情報通信学会，地球電磁気・惑星圏科学学会，日本大気電気学会，プラズマ核融合学会，砂防学会, International Union of Radio Sciences, American Geophysical Union, European Geosciences Union, IEEE, Asia Oceania Geoscience Society

（９）特許（発明者名，発明の名称，出願日，出願番号，整理番号等）（現時点で公表できるもののみ）

なし

（１０）その他

なし