

## Curriculum Vitae

Name: Yasuyuki Kano

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Date of birth: 26.April.1975 (male)

### Academic Record

**B. Sc.**, Kyoto University, Kyoto, Japan, **1999**

Graduated in Earth and Planetary Sciences

M. Sc. Course in Geophysics, Kyoto University, Kyoto, Japan, 1999-2001

**M. Sc.**, Kyoto University, Kyoto, Japan, **2001**

Dr. Sc. Course in Geophysics, Kyoto University, Kyoto, Japan, 2001-2004

**Dr. Sc.**, Kyoto University, Kyoto, Japan, **2005**

### Professional Experience

**COE Research fellows**, Kyoto University Active Geosphere Investigations for 21<sup>st</sup> Century COE Program, Kyoto University, Kyoto, Japan, **2005-2008**

**Assistant Professor**, Disaster Prevention Research Institute, Kyoto University, Uji, Japan, **2008-2018**

**Associate Professor**, Earthquake Research Institute, The University of Tokyo, Tokyo, Japan, **2018-present**

### Professional Service (Selected)

SE Section Secretary, Asia Oceania Geosciences Society, 2013-present

Delegate, Seismological Society of Japan, 2016-present

Editor of Zisin, Seismological Society of Japan, 2016-present

Convener, Seismology Summer School, Seismological Society of Japan, 2010

### Research Interest

Seismic and hydraulic instrumentation

Interaction between earthquake and groundwater

Rock mechanics

Historical earthquake

## Publication / Presentation

### Peer-reviewed papers

1. Kano, Y., Misdate in the Article Describing Earthquakes at Echigo-Takada in 1847, *Zisin*, 2, 69 41-47, 2016 (in Japanese).
2. Li, H. L. Xue, Emily E. Brodsky, James J. Mori, Patrick M. Fulton, H. Wang, Y. Kano, Kun Yun, R. N. Harris, Z. Gong, C. Li, J. Si, Z. Sun, J. Pei, Y. Zheng, and Z. Xu, Long-term temperature records following the Mw 7.9 Wenchuan (China) earthquake are consistent with low friction, *Geology*, 43(2), 163-166, 2015.
3. Kinoshita, C., Y. Kano, H. Ito, Shallow Crustal Permeability Enhancement in Central Japan due to the 2011 Tohoku Earthquake, *Geophysical Research Letters*, 42, 773-780, 2015.
4. Kano, Y., C. Kinoshita, H. Ito, Significance of Pore Pressure Monitoring in Monitoring of Crustal Stress and Strain, *Zairyo*, 63, 265-270, 2014. (In Japanese)
5. Xue, L. H.-B. Li, E.E. Brodsky, Z.-Q. Xu, Y. Kano, H. Wang, J.J. Mori, J.-L. Si, J.-L. Pei, W. Zhang, G. Yang, Z.-M. Sun, Y. Huang, Continuous permeability measurements record healing inside the Wenchuan earthquake fault zone, *Science*, 340(6140), 1555-1559, 2013.
6. P.M. Fulton, E.E. Brodsky, Y. Kano, J. Mori, F. Chester, T. Ishikawa, R.N. Harris, W. Lin, N. Eguchi, S. Toczko, Low coseismic friction on the Tohoku-Oki fault determined from temperature measurements, *Science*, 342(6163), 1214-1217, 2013.
7. D.M. Saffer, P.B. Flemings, D. Boutt, M.-L. Doan, T. Ito, L. McNeill, T. Byrne, M. Conin, W. Lin, Y. Kano, E. Araki, N. Eguchi, S. Toczko, In situ stress and pore pressure in the kumano forearc basin, offshore SW Honshu from downhole measurements during riser drilling, *Geochemistry, Geophysics, Geosystems*, 14(5), 1454-1470, 2013.
8. T. Ito, A. Funato, W. Lin, M.-L. Doan, D.F. Boutt, Y. Kano, H. Ito, D. Saffer, L.C. McNeill, T. Byrne, K.T. Moe, Determination of stress state in deep subsea formation by combination of hydraulic fracturing in situ test and core analysis: A case study in the IODP Expedition 319, *Journal of Geophysical Research*, 118(3) 1203-1215, 2013.
9. D.F. Boutt, D. Saffer, M.-L. Doan, W. Lin, T. Ito, Y. Kano, P. Flemings, L.C. McNeill, T. Byrne, N.W. Hayman, K.T. Moe, Scale dependence of in-situ permeability measurements in the Nankai accretionary prism: The role of fractures, *Geophysical Research Letters*, 39, 2012.
10. W. Lin, M.-L. Doan, J.C. Moore, L. McNeill, T.B. Byrne, T. Ito, D. Saffer, M. Conin, M. Kinoshita, Y. Sanada, K.T. Moe, E. Araki, H. Tobin, D. Boutt, Y. Kano, N.W. Hayman, P. Flemings, G.J. Huftile, D. Cukur, C. Buret, A.M. Schleicher, N. Efimenko, K. Kawabata, D.M. Buchs, S. Jiang, K. Kameo, K. Horiguchi, T. Wiersberg, A. Kopf, K. Kitada, N.

- Eguchi, S. Toczko, K. Takahashi, Y. Kido, Present-day principal horizontal stress orientations in the Kumano forearc basin of the southwest Japan subduction zone determined from IODP NanTroSEIZE drilling Site C0009, *Geophysical Research Letters*, 37(13), 2010.
11. Mori, J., Y. Kano, J. McGuire, Ocean Transform Fault Drilling and Water Injection: An Active Experiment to Trigger a Moderate Earthquake, *Gekkan Chikyu*, 32, 86-88, 2010 (in Japanese).
  12. Mori, J. and Y. Kano, The 1999 Chi-Chi, Taiwan Earthquake (Mw=7.6) and Fault Zone Temperature Measurements to Determine Fault Friction, *J. Japan Soc. Natural Disaster Sci.*, 28, 151-159, 2009 (in Japanese).
  13. Fukushima, Y., J. Mori, M. Hashimoto, and Y. Kano, Subsidence associated with the LUSI mud eruption, East Java, investigated by SAR interferometry, *Marine and Petroleum Geology*, 29, 1740-1750, doi:10.1016/j.marpetgeo.2009.02.001, 2009.
  14. Kano, Y. T. Yanagidani, Y. Kitagawa and F. Yamashita, Monitoring of pore pressure changes using closed borehole wells: Interpretations based on poroelasticity, *Geodynamics of the Atotsugawa Fault System*, Edited by M. Ando, Terrapub, 2007.
  15. Iio, Y., S. Matshimoto, K. Matsushima, K. Uehira, H. Katao, S. Ohmi, T. Shibutani, F. Takeuchi, K. Nishigami, B. Enescu, I. Hirose, Y. Kano, Y. Mamada, M. Miyazawa, K. Tasumi, H. Wada, H. Kono, M. Korenaga, T. Ueno, Y. Yukutake,, Generating process of the 2004 Mid Niigata Prefecture Earthquake – Based on the Results from the Join Online Aftershock Observation -, *Zishin*, 58, 463-475, 2006. (In Japanese)
  16. Doan, M. L., E. E. Brodsky, Y. Kano, and K. F. Ma, In situ measurement of the hydraulic diffusivity of the active Chelungpu Fault, Taiwan, *Geophys. Res. Lett.*, 33, L16317, doi:10.1029/2006GL026889, 2006.
  17. Kano, Y., J. Mori, R. Fujio, H. Ito., T. Yanagidani, S. Nakao and K.-F. Ma, Heat Signature on the Chelungpu Fault Associated with the 1999 Chi-Chi, Taiwan Earthquake, *Geophys. Res. Lett.*, 33, L14306, doi:10.1029/2006GL026733, 2006.
  18. Kano, Y. and T. Yanagidani, Broadband hydroseismograms observed by closed borehole wells in the Kamioka mine, central Japan: Response of pore pressure to 0.05 to 2 Hz seismic waves, *J. Geophys. Res.*, 111, B03410, doi:10.1029/2005JB003656, 2006.
  19. Shibutani, T., Y. Iio, S. Matsumoto, H. Katao, T. Matsushima, S. Ohmi, F. Takeuchi, K. Uehira, K. Nishigami, B. Enescu, I. Hirose, Y. Kano, Y. Kohno, M. Korenaga, Y. Mamada, M. Miyazawa, K. Tatsumi, T. Ueno, H. Wada, and Y. Yukutake, Aftershock distribution of the 2004 Mid Niigata Prefecture Earthquake derived from a combined analysis of temporary online observations and permanent observations, *Earth Planets Space*, 57, 6, pp. 545-549, 2005.

20. Nishigami, K., K. Tadokoro, S. Nagai, T. Mizuno, Y. Kano, Y. Hiramatsu, Triggering Characteristics of Induced Earthquakes: Brief Review of Water Injection Experiments in the Nojima Fault and Other Regions, *Journal of Geography*, 111, 268-276, 2002. (In Japanese)
21. Tadokoro, K., K. Nishigami, M. Ando, N. Hirata, T. Iidaka, Y. Hashida, K. Shimazaki, S. Ohmi, Y. Kano, M. Koizumi, S. Matsuo, and H. Wada, Seismicity changes related to a water injection experiment in the Nojima fault zone, *The Island Arc*, **10**, 235-243, 2001.
22. 永井悟・加納靖之・田所敬一・水野高志・山中寛志・大見士朗・西上欽也・平松良浩・平田直, 2000年野島断層注水実験に伴う極微小誘発地震活動の観測, *東京大学地震研究所彙報*, 第76号, 第2冊, pp.163-186, 2001. [Nagai, S., Y. Kano, K. Tadokoro, T. Mizuno, H. Yamanaka, S. Ohmi, K. Nishigami, Y. Hiramatsu, and N. Hirata, Microseismic observations during a water injection experiment in 2000 at the Nojima fault, Japan, *Bulletin of the Earthquake Research Institute University of Tokyo*, **76**, 2, 163-186, 2001 (in Japanese with English abstract).]
23. Koizumi N., Y. Kano, Y. Kitagawa, T. Sato, M. Takahashi, S. Nishimura, and R. Nishida, Groundwater anomalies associated with the 1995 Hyogo-ken Nanbu Earthquake, *Journal of Physics of the Earth*, **44**, 373-380, 1996.

Other papers, reports

24. Kano, Y., A Mud Rain Event in February 1882, DPRI Annuals, 59B, 72-75, 2016 (in Japanese).
25. Kano, Y. J. mori, R. Fujio, T. Yanagidani, S. Nakao, H. Ito, O. Matsubayashi, and K.-F. Ma, Precise temperature measurement and earthquake heat associated with the 1999 Chi-chi, Taiwan earthquake, *Scientific drilling, Special issue*, 1, 94-96, doi:10.2204/iodp.sd.s01.40.2007, 2007.
26. 飯尾能久・松本 聡・片尾 浩・松島 健・大見士朗・渋谷拓郎・竹内文朗・植平賢司・西上欽也・宮澤理稔・Bogdan Enescu・廣瀬一聖・加納靖之・河野裕希・辰己賢一・上野友岳・和田博夫・行竹洋平, 2004年新潟県中越地震の発生過程., 月刊地球号外(2004年新潟県中越地震), 号外 No.53:217-222, 2006.
27. 飯尾能久・松本 聡・片尾 浩・松島 健・大見士朗・渋谷拓郎・竹内文朗・植平賢司・西上欽也・Bogdan ENESCU・廣瀬一聖・加納靖之・河野裕希・是永将宏・儘田豊・宮澤理稔・辰己賢一・上野友岳・和田博夫・行竹洋平, 2004年新潟県中越地震の発生過程, 京都大学防災研究所年報, 48(A):165-170, 2005.
28. 加納靖之・柳谷俊, 地殻の応力センサーとしてのボアホール井戸-1 軸的な载荷に対する間隙水圧の応答-, *月刊地球*, 26, 103-108, 2004.
29. Kano, Y., T. Yanagidani, F. Yamashita, H. Ishii, Y. Asai, and T. Yamauchi, Poroelastic

Monitoring of the Stress at the Mozumi-Sukenobu Fault, Japan, in *Environmental Rock Engineering - Proceedings of the First Kyoto International Symposium on Underground Environment-*, edited by T. Saito and S. Murata, pp. 313-316, A. A. Balkema, Lisse, the Netherlands, 2003.

30. Kano, Y., H. Kawakata, and T. Yanagidani, Ultrasonic technique for probing the changes of contact on a discontinuity subjected to normal load, in *Seismogenic Process Monitoring*, edited by H. Ogasawara, T. Yanagidani, and M. Ando, pp. 297-305, A. A. Balkema, Lisse, the Netherlands, 2002.
31. Tadokoro, K., Y. Kano, K. Nishigami, and T. Mizuno, Repeated water injection experiments at the Nojima fault zone, Japan: induced earthquakes and temporal change in fault zone permeability, *Proceedings of ICDP\_WS on Chelungpu drilling*, 83-89, 2001.
32. 永井悟・平田直・加納靖之・水野高志・山中寛志・田所敬一・西上欽也・平松良浩, 注水試験に伴う極微小地震活動の震源域の決定とその時間変化, *月刊地球*, **23**, 260-263, 2001.
33. 田所敬一・加納靖之・西上欽也, 注水実験にともなうクラスタ的地震活動, *月刊地球*, **23**, 264-267, 2001.
34. 加納靖之・平松良浩・田所敬一・西上欽也, 注水実験前後の地震活動の規模別頻度分布, *月刊地球*, **23**, 277-280, 2001.
35. 田所敬一・西上欽也・安藤雅孝・平田直・飯高隆・橋田幸浩・島崎邦彦・加納靖之・小泉誠・松尾成光・和田博夫・大見士朗, 注水試験に伴う極微小地震活動の変化, *月刊地球*, 号外 **21**, 44-48, 1998.

Presentations / Posters (International conferences, selected)

36. Kano, Y. and T. Yanagidani, Hydraulic diffusivity around the Kamioka mine estimated from barometric response of pore pressure, AGU Western Pacific Geophysics Meeting, H53C-01
37. Kano, Y., T. Ito, W. Lin, P. B. Flemings, D. F. Boutt, M. Doan, L. C. McNeill, T. B. Byrne, D. M. Saffer, E. Araki, N. O. Eguchi, K. Takahashi, S. Toczko, and Exp319 Scientists (2009), Hydraulic Fracture Measurements at Site C0009 of IODP Expedition 319, NanTroSEIZE, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract T21C-1837T21C-1833
38. Kano, Y., A. Araya, W. Morii, and T. Yanagidani, Coupling Between Pore Pressure and Strain : Coseismic O set and Seasonal Variation, 7th General Assembly of Asian Seismological Commission and Seismological Society of Japan, 2008 Fall meeting, Tsukuba, X3-090.
39. Kano, Y., Y. Kitagawa, A. Mukai, and T. Yanagidani, Permeability Around the Nojima

- Fault Estimated Using Barometric Response of Pore Pressure, 7th General Assembly of Asian Seismological Commission and Seismological Society of Japan, 2008 Fall meeting, Tsukuba, X4-053.
40. Hashimoto, M., Y. Kano, A. Saito, Y. Fukuda, and M. Hashizume, Seismic waves from May , Wenchuan, China, earthquake observed by high rate GPS in Thailand, 7th General Assembly of Asian Seismological Commission and Seismological Society of Japan, 2008 Fall meeting, Tsukuba, X2-036.
  41. Kano, Y. and T. Yanagidani, Pore pressure measurement in the Kamioka mine, central Japan Taiwan-Japan Joint Conference on Hydrological Research for Earthquake Prediction, Tainan, 2007.
  42. Kano, Y., H. Ito, O. Matsubayashi, and J. Mori, Methods for analysis of high resolution temperature logs in deep boreholes, IUGG2007 XXIV General Assembly, Perugia, 2007
  43. Kano, Y. and T. Yanagidani, Poroelastic observation of seismic phenomena using closed borehole well, IUGG2007 XXIV General Assembly, Perugia, 2007
  44. T. Yanagidani and Kano, Y., Free oscillations of the earth observed by closed borehole wells, , IUGG2007 XXIV General Assembly, Perugia, 2007
  45. Kano, Y., K. Tadokoro, K. Nishigami and J. Mori, Change in Seismic Attenuation of the Nojima Fault Zone Measured Using Spectral Ratios from Borehole Seismometers, Eos Trans. AGU, 87(52), Fall Meet. Suppl., Abstract, ST21C-0442, 2006.
  46. Doan, M. L., E. E. Brodsky, Y. Kano, and K. F. Ma, In-Situ Measurement of the Hydraulic Diffusivity of the Active Chelungpu Fault, Taiwan, Eos Trans. AGU, 87(52), Fall Meet. Suppl., Abstract S43C-02, 2006.
  47. Local Slip Event Associated with the Sumatra Earthquake Detected by Pore Pressure Measurement in the Kamioka mine, KAGI21 4th International Symposium, Kyoto, Japan Dec. 2-5, 2006
  48. Y. Kano, Jim Mori, R. Fujio, T. Yanagidani, S. Nakao, H. Ito. K.-F. Ma, Precise Temperature Measurements and Earthquake Heat Associated with the 1999 Chi-Chi, Taiwan Earthquake IODP-ICDP Joint Workshop on Fault Zone Drilling, Miyazaki, May 23-26, 2006
  49. Fujio, R., J. Mori, H. Ito, T. Yanagidani, Y. Kano, S. Nakao, K. Nishimura, and M. Toma, Fault zone Temperature Measurements to Search for a Thermal Anomaly in the Chelungpu Fault, Taiwan, Eos Trans. AGU, 86(52), Fall Meet. Suppl., Abstract T51A-1322.
  50. Kano, Y. and T. Yanagidani, Broadband Pore Pressure Measurements Using Closed Borehole Wells, APRU/AEARU Research Symposium 2005 Earthquake Hazards around the Pacific Rim - Prediction and Disaster Prevention -, Kyoto, 2005.
  51. Fujio, R., J. Mori, H. Ito, T. Yanagidani, Y. Kano, S. Nakao, K. Nishimura, and M. Toma,

- Fault zone Temperature Measurements to Search for Thermal Anomaly in the Chelungpu Fault, Taiwan, APRU/AEARU Research Symposium 2005 Earthquake Hazards around the Pacific Rim - Prediction and Disaster Prevention -, Kyoto, 2005.
52. Kano Y., and T. Yanagidani, Pore Pressure Measurements Using Closed Borehole Wells, IASPEI General Assembly, Santiago, Chile, 2005.
  53. Yanagidani, T. and Y. Kano, Free Oscillations of the Earth Observed on the Hydroseismogram Obtained in Closed Boreholes, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract S51A-0144, *AGU Fall Meeting*, San Francisco, California, 2004.
  54. Nishigami, K., and Research Group of Water Injection Experiment at Nojima, Repeated water injection experiments at the Nojima fault: Study of fault healing process and induced earthquakes, IUGG, Sapporo, 2003.
  55. Kano, Y., T. Yanagidani, F. Yamashita, H. Ishii, Y. Asai, and T. Yamauchi, Poroelastic Monitoring of the Stress at the Mozumi-Sukenobu Fault, Japan, *The First Kyoto International Symposium on Underground Environment*, Kyoto, Japan, 2003.
  56. Kano, Y., T. Yanagidani, F. Yamashita, H. Ishii, T. Yamauchi, and Y. Asai, Poroelastic Monitoring of Stress Buildup Process at the Mozumi-Sukenobu Fault, *Eos Trans. AGU*, 83(47), Fall Meet. Suppl., Abstract T62C-1340, *AGU Fall Meeting*, San Francisco, California, 2002.
  57. Yanagidani, T., Y. Kano, and F. Yamashita, Frequency response of the pore pressure wells - from tidal to seismic frequency -, *Eos Trans. AGU*, 83(47), Fall Meet. Suppl., Abstract T22B-1162, *AGU Fall Meeting*, San Francisco, California, 2002.
  58. Kano, Y., K. Nishigami, and T. Yanagidani, Seismic Observation at the Nojima Fault with a PC-Based High-Speed Waveform Acquisition System, *International Workshop on Physics of Active Fault*, Tsukuba, 2002.
  59. Nishigami, K., K. Tadokoro, T. Mizuno, Y. Kano, Y. Hiramatsu, and S. Nagai, Fault-Zone Structure and its Temporal Change of the Nojima Fault, Japan, Estimated from Repeated Water Injection Experiments and Borehole Seismic Observations, *International Workshop on Physics of Active Fault*, Tsukuba, 2002.
  60. Kano, Y., Y. Hiramatsu, Tadokoro, K., and K. Nishigami, Frequency-magnitude distribution of earthquakes around a water injection experiment at the Nojima fault, Japan, *AGU Fall Meeting*, San Francisco, California, 2000.
  61. Nishigami, K., and Res. Grp. Water Injection Exp. Nojima Fault, Repeated water injection experiments at the Nojima fault: Fault healing process and induced earthquakes, *AGU Fall Meeting*, San Francisco, California, 2000.
  62. Tadokoro, K., Y. Kano, and K. Nishigami, Microscale hypocenter migration associated with a water injection experiment at the Nojima fault, Japan, *AGU Fall Meeting*, San

Francisco, California, 2000.

63. Nagai, S., N. Hirata, Y. Kano, T. Mizuno, Tadokoro, K., K. Nishigami, and Y. Hiramatsu, Microearthquake activity induced by a water injection experiment in the Nojima Fault, Japan, *AGU Fall Meeting*, San Francisco, California, 2000.
64. Kano, Y., H. Kawakata, and T. Yanagidani, Time-Dependent Characteristics of the Asperity Contacts Probed by Using Transmitted P-waves, *AGU Fall Meeting*, San Francisco, California, 1999.
65. Tadokoro, K., K. Nishigami, M. Ando, M. Koizumi, S. Matsuo, H. Wada, S. Ohmi, Y. Kano, N. Hirata, T. Iidaka, Y. Hashida, and K. Shimazaki, Seismic activity change related to water injection experiment at the Nojima fault, *AGU Fall Meeting*, San Francisco, California, 1997.

Professional Service / University Service / Outreach (Selected)

2010-present: Editor of Zisin

2010 : Convener, Seismology Summer School

2012-present: member of the steering committee, Super Science High School at Okayama Ichinomiya High School

2014-present: Editor of Zisin