

Publication & Presentation List of Tetsuo Hanaguri (May. 14, 2012)

Refereed articles

1. “*Momentum-resolved Landau-level spectroscopy of Dirac surface state in Bi_2Se_3* ”,
T. Hanaguri, K. Igarashi, M. Kawamura, H. Takagi and T. Sasagawa
Phys. Rev. B, **82**, 081305(R) (2010).
2. “*Unconventional s-Wave Superconductivity in $\text{Fe}(\text{Se},\text{Te})$* ”,
T. Hanaguri, S. Niitaka, K. Kuroki and H. Takagi
Science, **328**, 474-476 (2010).
3. “*Coherence Factors in a High- T_c Cuprate Probed by Quasi-particle Scattering off Vortices*”,
T. Hanaguri, Y. Kohsaka, M. Ono, M. Maltseva, P. Coleman, I. Yamada, M. Azuma, M. Takano, K. Ohishi
and H. Takagi
Science, **323**, 923-926 (2009).
4. “*Quasiparticle interference and superconducting gap in $\text{Ca}_{2-x}\text{Na}_x\text{CuO}_2\text{Cl}_2$* ”,
T. Hanaguri, Y. Kohsaka, J. C. Davis, C. Lupien, I. Yamada, M. Azuma, M. Takano, K. Ohishi, M. Ono
and H. Takagi
Nature Phys., **3**, 865-871 (2007).
5. “*Charge-order-maximized momentum-dependent superconductivity*”,
T. Kiss, T. Yokoya, A. Chainani, S. Shin, **T. Hanaguri**, M. Nohara and H. Takagi
Nature Phys., **3**, 720-725 (2007).
6. “*Local Tunneling Spectroscopy across a Metamagnetic Critical Point in the Bilayer Ruthenate $\text{Sr}_3\text{Ru}_2\text{O}_7$* ”,
K. Iwaya, S. Satow, **T. Hanaguri**, N. Shannon, Y. Yoshida, S. I. Ikeda, J. P. He, Y. Kaneko, Y. Tokura, T.
Yamada and H. Takagi
Phys. Rev. Lett., **99**, 057208 (2007).
7. “*An Intrinsic Bond-Centered Electronic Glass with Unidirectional Domains in Underdoped Cuprates*”,
Y. Kohsaka, C. Taylor, K. Fujita, A. Schmidt, C. Lupien, **T. Hanaguri**, M. Azuma, M. Takano, H. Eisaki, H.
Takagi, S. Uchida and J. C. Davis
Science, **315**, 1380-1385 (2007).
8. “*A ‘checkerboard’ electronic crystal state in lightly hole-doped $\text{Ca}_{2-x}\text{Na}_x\text{CuO}_2\text{Cl}_2$* ”,
T. Hanaguri, C. Lupien, Y. Kohsaka, D. -H. Lee, M. Azuma, M. Takano, H. Takagi and J. C. Davis,
Nature, **430**, 1001-1005 (2004).
9. “*Evolution of local electronic states from a metal to a correlated insulator in a $\text{NiS}_{2-x}\text{Se}_x$ solid solution*”
K. Iwaya, Y. Kohsaka, S. Satow, **T. Hanaguri**, S. Miyasaka and H. Takagi
Phys. Rev. B, **70**, 161103(R) (2004).
10. “*Imaging nano-scale electronic inhomogeneity in lightly doped Mott insulator $\text{Ca}_{2-x}\text{Na}_x\text{CuO}_2\text{Cl}_2$* ”,
Y. Kohsaka, K. Iwaya, S. Satow, **T. Hanaguri**, K. Kitazawa, M. Azuma, M. Takano and H. Takagi,
Phys. Rev. Lett., **93**, 097004 (2004).
11. “*High-field state of the flux-line lattice in the unconventional superconductor CeCoIn_5* ”
T. Watanabe, Y. Kasahara, K. Izawa, T. Sakakibara, Y. Matsuda, C. J. van der Beek, **T. Hanaguri**, H.

- Shishido, R. Settai and Y. Onuki
Phys. Rev. B, **70**, 020506(R) (2004).
12. “Anisotropy of the Superconducting Gap of the Borocarbide Superconductor YNi_2B_2C with Ultrasonic Attenuation”,
Tadataka Watanabe, Minoru Nohara, **Tetsuo Hanaguri** and Hidenori Takagi,
Phys. Rev. Lett. **92**, 147002 (2004).
13. “An instrument for low- and variable-temperature millimeter-wave surface impedance measurements under magnetic fields”,
T. Hanaguri, K. Takaki, Y. Tsuchiya and A. Maeda
Rev. Sci. Instrum. **74**, 4436-4441 (2003).
14. “Angle-Resolved Photoemission Spectroscopy of $(Ca,Na)_2CuO_2Cl_2$ Crystals: Fingerprints of a Magnetic Insulator in a Heavily Underdoped Superconductor”,
Yuhki Kohsaka, Takao Sasagawa, Filip Ronning, Teppei Yoshida, Changyoung Kim, **Tetsuo Hanaguri**,
Masaki Azuma, Mikio Takano, Zhi Xun Shen and Hidenori Takagi
J. Phys. Soc. Jpn. **72**, 1018-1021 (2003).
15. “Observations of electronic inhomogeneity in heavily Pb-doped $Bi_2Sr_2CaCu_2O_y$ single crystals by scanning tunneling microscopy”,
G. Kinoda, T. Hasegawa, S. Nakao, **T. Hanaguri**, K. Kitazawa, K. Shimizu, J. Shimoyama and K. Kishio
Phys. Rev. B, **67**, 224509-1-224509-5 (2003).
16. “Electronic structures of two-phase microstructures α and β in heavily Pb-doped $Bi_2Sr_2CaCu_2O_y$ single crystals investigated by scanning tunneling microscopy/spectroscopy”
G. Kinoda, T. Hasegawa, S. Nakano, **T. Hanaguri**, K. Shimizu, J. Shimoyama and K. Kishio
Appl. Phys. Lett. **83**, 1178-1180 (2003).
17. “Effects of superconducting gap anisotropy on the flux flow resistivity in $Y(Ni_{1-x}Pt_x)_2B_2C$ ”,
K. Takaki, A. Koizumi, **T. Hanaguri**, M. Nohara, H. Takagi, K. Kitazawa, Y. Kato, Y. Tsuchiya, H. Kitano
and A. Maeda
Phys. Rev. B **66**, 184511-1-184511-5 (2002).
18. “Growth of Na-doped $Ca_2CuO_2Cl_2$ single crystals under high pressures of several GPa”,
Y. Kohsaka, M. Azuma, I. Yamada, T. Sasagawa, **T. Hanaguri**, M. Takano and H. Takagi,
J. Am. Chem. Soc. **124**, 12275-12278 (2002).
19. “Direct evidence of the anisotropic structure of vortices interacting with columnar defects in high-temperature superconductors through the analysis of Lorentz images”
O. Kamimura, H. Kasai, T. Akashi, T. Matsuda, K. Harada, J. Masuko, T. Yoshida, N. Osakabe, A.
Tonomura, M. Beleggia, G. Pozzi, J. Shimoyama, K. Kishio, **T. Hanaguri**, K. Kitazawa, M. Sasase and S.
Okayasu,
J. Phys. Soc. Jpn. **71**, 1840-1843 (2002).
20. “Observation of structures of chain vortices inside anisotropic high- T_c superconductors”,
A. Tonomura, H. Kasai, O. Kamimura, T. Matsuda, K. Harada, T. Yoshida, T. Akashi, J. Shimoyama, K.

- Kishio, **T. Hanaguri**, K. Kitazawa, T. Masui, S. Tajima, N. Koshizuka, PL. Gammel, D. Bishop, M. Sasase and S. Okayasu,
Phys. Rev. Lett. **88**, 273001-1-273001-4 (2002).
21. "Location-sensitive measurement of the local fluctuation of driven vortex density in $Bi_2Sr_2CaCu_2O_y$ ",
A. Maeda, T. Tsuboi, R. Abiru, Y. Togawa, H. Kitano, K. Iwaya and **T. Hanaguri**,
Phys. Rev. B, **65**, 54506-54516 (2002).
22. "Microwave and millimeter wave spectroscopy in the slightly hole-doped ladders of $Sr_{14}Cu_{24}O_{41}$ ",
H. Kitano, R. Inoue, **T. Hanaguri**, A. Maeda, N. Motoyama, M. Takaba, H. Eisaki and S. Uchida,
Europhys. Lett. **56**, 434-440 (2001).
23. "Oscillating rows of vortices in superconductors",
T. Matsuda, O. Kamimura, H. Kasai, K. Harada, T. Yoshida, T. Akashi, A. Tonomura, Y. Nakayama, J. Shimoyama, K. Kishio, **T. Hanaguri** and K. Kitazawa,
Science **294**, 2136-2138 (2001).
24. "Observation of individual vortices trapped along columnar defects in high-temperature superconductors",
A. Tonomura, H. Kasai, O. Kamimura, T. Matsuda, K. Harada, Y. Nakayama, J. Shimoyama, K. Kishio, **T. Hanaguri**, K. Kitazawa, M. Sasase and S. Okayasu,
Nature **412**, 620-622 (2001).
25. "Electronic state of vortices in $YBa_2Cu_3O_y$ investigated by complex surface impedance measurements",
Y. Tsuchiya, K. Iwaya, K. Kinoshita, **T. Hanaguri**, H. Kitano, A. Maeda, K. Shibata, T. Nishizaki and N. Kobayashi,
Phys. Rev. B **63**, 184517-1 - 184517-9 (2001).
26. "Interlayer phase correlation of a vortex system around the coupling transition in $Bi_2Sr_2CaCu_2O_y$ containing columnar defects",
Y. Tsuchiya, **T. Hanaguri**, H. Yasuda, A. Maeda, M. Sasase, K. Hojou, D. G. Steel, J. U. Lee and D. J. Hofman,
Phys. Rev. B **59**, 11568-11574 (1999).
27. "In-plane charge dynamics in $La_{1.6-x}Nd_{0.4}Sr_xCuO_4$: Absence of a charge gap in the spin/charge ordered state",
S. Tajima, NL. Wang, N. Ichikawa, H. Eisaki, S. Uchida, H. Kitano, **T. Hanaguri** and A. Maeda,
Europhys. Lett. **47**, 715-721 (1999).
28. "Reduction of the superfluid density in the vortex-liquid phase of $Bi_2Sr_2CaCu_2O_y$ ",
T. Hanaguri, T. Tsuboi, Y. Tsuchiya, K. Sasaki and A. Maeda,
Phys. Rev. Lett. **82**, 1273-1276 (1999).
29. "Field dependence of penetration depth in an electron-doped cuprate superconductor $Nd_{2-x}Ce_xCuO_4$ with $x=0.16$ ",
A. Maeda, H. Yasuda and **T. Hanaguri**,
J. Phys. Soc. Jpn. **68**, 594-598 (1999).
30. "Nonlinear Josephson plasma resonance in $Bi_2Sr_2CaCu_2O_y$ ",

- T. Hanaguri**, Y. Tsuchiya and A. Maeda,
Phys. Rev. B **58**, R8929-R8932 (1998).
31. "Local density fluctuations of moving vortices in the solid and liquid phases in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_y$ ",
T. Tsuboi, **T. Hanaguri** and A. Maeda,
Phys. Rev. Lett. **80**, 4550-4553 (1998).
32. "c-axis microwave conductivity of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_y$ in the superconducting state",
H. Kitano, **T. Hanaguri** and A. Maeda,
Phys. Rev. B **57**, (1998) 10946-10950.
33. "Dielectric response of the sliding SDW in $(\text{TMTSF})_2\text{AsF}_6$ ",
X. M. Wang, A. Maeda, H. Iizuka and **T. Hanaguri**,
Solid State Commun. **104**, 505-509 (1997).
34. "Effects of columnar defects on the Josephson plasma resonance in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_y$ ",
T. Hanaguri, Y. Tsuchiya, S. Sakamoto, A. Maeda and D. G. Steel,
Phys. Rev. Lett. **78**, 3177-3180 (1997).
35. "Nature of the vortex liquid in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_y$ ",
T. Tsuboi, **T. Hanaguri** and A. Maeda,
Phys. Rev. B **55**, R8709-R8712 (1997).
36. "Nonlinear Meissner effect in double layered high- T_c cuprates investigated by measurement of the penetration depth",
A. Maeda, **T. Hanaguri**, Y. Iino, S. Masuoka, Y. Kokata, J. Shimoyama, K. Kishio, H. Asaoka, Y. Matsushita, M. Hasegawa and H. Takei,
J. Phys. Soc. Jpn. **65**, 3638-3645 (1996).
37. "Josephson plasma resonance in a single-layered cuprate $\text{Bi}_2(\text{Sr},\text{La})_2\text{CuO}_y$ ",
S. Sakamoto, A. Maeda, **T. Hanaguri**, Y. Kotaka, J. Shimoyama, K. Kishio, Y. Matsushita, M. Hasegawa, H. Takei, H. Ikeda and R. Yoshizaki,
Phys. Rev. B **53**, R14749-R14752 (1996).
38. "Crossover from the first-order vortex phase transition to the peak effect in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_y$ having different oxygen contents",
T. Hanaguri, T. Tsuboi, A. Maeda, T. Nishizaki, N. Kobayashi, Y. Kotaka, J. Shimoyama and K. Kishio,
Physica C **256**, 111-118 (1996).
39. "Magnetic-field dependence of the London penetration depth in type-II superconductor V_3Si ",
T. Hanaguri, Y. Iino, A. Maeda and T. Fukase,
Physica C **246**, 223-227 (1995).
40. "Magnetic field dependence of the London penetration depth of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_y$ ",
A. Maeda, Y. Iino, **T. Hanaguri**, N. Motohira, K. Kishio and T. Fukase,
Phys. Rev. Lett. **74**, 1202-1205 (1995).
41. "Low-temperature structural phase transition and electronic anomalies in $\text{La}_{1.775}\text{R}_{0.10}\text{Sr}_{0.125}\text{CuO}_4$ ($R=\text{Nd},\text{Sm},\text{Gd},\text{Tb}$)",
T. Suzuki, M. Sera, **T. Hanaguri** and T. Fukase,

- Phys. Rev. B **49**, 12392-12395 (1994).
42. "Elastic properties and anisotropic pinning of the flux-line lattice in single-crystalline $La_{1.85}Sr_{0.15}CuO_4$ ",
T. Hanaguri, T. Fukase, I. Tanaka and H. Kojima,
Phys. Rev. B **48**, 9772-9781 (1993).
43. "Phase transition below T_c in $La_{2-x}Sr_xCuO_4$ ($x=0.12$) observed by ^{138}La -NQR",
T. Goto, T. Nomoto, **T. Hanaguri**, T. Shinohara, T. Sato and T. Fukase,
J. Phys. Soc. Jpn. **60**, 3581-3582 (1991).
44. "A low-temperature X-ray diffraction study of structural phase transition in $La_{1.86}Sr_{0.14}CuO_4$ ",
Y. Watanabe, **T. Hanaguri**, T. Fukase, I. Tanaka and H. Kojima,
Jpn. J. Appl. Phys. **29**, 2763-2767 (1990).
45. "Possibility of negative exchange interaction effect in RE-Ba-Cu oxides",
Y. Koike, T. Nakanomyo, **T. Hanaguri**, T. Nomoto and T. Fukase,
Physica B & C **148**, 446-448 (1987).
46. "Magnetic field effect on the superconducting transition in $(RE)_xBa_{1-x}CuO_y$ ",
Y. Koike, T. Nakanomyo, **T. Hanaguri**, T. Nomoto and T. Fukase,
Jpn. J. Appl. Phys. **26**, L2069-L2071 (1987).

Proceedings

1. “*Low-energy spectroscopic mapping studies in optimally-doped $Ca_{2-x}Na_xCuO_2Cl_2$* ”
T. Hanaguri, Y. Kohsaka, J. C. Séamus Davis, C. Lupien, I. Yamada, M. Azuma, M. Takano, K. Ohishi and H. Takagi
Physica C **460–462**, 954–955 (2007).
2. “*Development of high-field STM and its application to the study on magnetically-tuned criticality in $Sr_3Ru_2O_7$* ”
T. Hanaguri
Journal of Physics: Conference Series **51**, 514–521 (2006).
3. “*Evolution of the Local Density of States in $Sr_3Ru_2O_7$ across the Magnetic-Field-Tuned Quantum Critical Point*”
K. Iwaya, S. Satow, **T. Hanaguri**, J. P. He, R. Mathieu, Y. Kaneko, Y. Tokura and H. Takagi,
AIP Conference Proceedings **850**, 1205-1206 (2006).
4. “*Anisotropic s-wave superconductors studied by angle-resolved photoemission spectroscopy*”
T. Yokoya, T. Baba, S. Tsuda, T. Kiss, A. Chainani, S. Shin, T. Watanabe, M. Nohara, **T. Hanaguri**, H. Takagi, Y. Takano, H. Kito, J. Itoh, H. Harima and T. Oguchi
Journal of Physics and Chemistry of Solids **67**, 277–281 (2006).
5. “*New high field state of flux line lattice in $CeCoIn_5$* ”
Y. Kasahara, T. Watanabe, K. Izawa, T. Sakakibara, C.J. van der Beek, **T. Hanaguri**, M. Nohara, H. Takagi, H. Shishido, R. Settai, Y. Onuki and Y. Matsuda,
Physica C **426–431**, 36–40 (2005).
6. “*Multiple superconducting phases in heavy fermion superconductors*”
Y. Matsuda, K. Izawa, T. Watanabe, Y. Kasahara, Y. Nakajima, T. Sakakibara, C.J. van der Beek, M. Nohara, **T. Hanaguri**, H. Takagi, J. Goryo, K. Makie P. Thalmeier, S. Osaki, H. Sugawara, H. Sato, H. Shishido, R. Settai and Y. Onuki,
Journal of Physics and Chemistry of Solids **66**, 1365–1369 (2005).
7. “*STM/STS study of metal to Mott insulator transitions*”
T. Hanaguri, Y. Kohsaka, K. Iwaya, S. Satow, K. Kitazawa, H. Takagi, M. Azuma, and M. Takano,
Physica C **408-410**, 328–329 (2004).
8. “*STM/STS study on $Ca_{2-x}Na_xCuO_2Cl_2$ single crystals*”,
Y. Kohsaka, **T. Hanaguri**, K. Kitazawa, M. Azuma, M. Takano and H. Takagi,
Physica C **388-389**, 283-284 (2003).
9. “*Specific heat study of magnetic superconductor $ErNi_2B_2C$ single crystal under magnetic fields*”,
S. Nakao, **T. Hanaguri**, K. Hashimoto, M. Nohara, H. Takagi and K. Kitazawa,
Physica C **388-389**, 179-180 (2003).
10. “*Anomaly of quasi-particle density of states in the vortex state of $NbSe_2$* ”,
T. Hanaguri, A. Koizumi, K. Takaki, M. Nohara, H. Takagi and K. Kitazawa,
Physica B **329-333**, 1355-1356 (2003).
11. “*Electronic state of $NbSe_2$ investigated by STM/STS*”,

- K. Iwaya, **T. Hanaguri**, A. Koizumi, K. Takaki, A. Maeda and K. Kitazawa, Physica B **329-333**, 1598-1599 (2003).
12. "Real space imaging of the electronic states in underdoped $Ca_{2-x}Na_xCuO_2Cl_2$ single crystals", Y. Kohsaka, **T. Hanaguri**, K. Kitazawa, M. Azuma, M. Takano, H. Takagi, J. Low Temp. Phys. **131**, 299-303 (2003).
 13. "Effect of Zn doping on the electronic state of the vortex core in the mixed state of $YBa_2Cu_3O_y$ ", K. Kinoshita, Y. Tsuchiya, **T. Hanaguri**, H. Kitano, A. Maeda, T. Nishizaki, T. Sato and N. Kobayashi Physica C **378-381**, 584-587 (2002).
 14. "Lorentz microscopy observation of vortices inside Bi-2212 thin films with columnar defects", A. Tonomura, H. Kasai, O. Kamimura, T. Matsuda, K. Harada, Y. Nakayama, J. Shimoyama, K. Kishio, **T. Hanaguri**, K. Kitazawa, M. Sasase, S. Okayasu, Physica C **369**, 68-76 (2002).
 15. "Dynamics vs electronic states of vortex core of high- T_c superconductors investigated by high-frequency impedance measurement", A. Maeda, Y. Tsuchiya, K. Iwaya, K. Kinoshita, **T. Hanaguri**, H. Kitano, T. Nishizaki, K. Shibata, N. Kobayashi, J. Takeya, K. Nakamura and Y. Ando, Physica C **362**, 127-134 (2001).
 16. "Estimation of vortex viscosity from the complex surface impedance measurement in the mixed state of $YBa_2Cu_3O_y$ ", Y. Tsuchiya, K. Kinoshita, **T. Hanaguri**, H. Kitano, A. Maeda, T. Nishizaki, K. Shibata and N. Kobayashi, Physica C **362**, 273-276 (2001).
 17. "High-frequency electromagnetic response in the mixed state of $YBa_2Cu_3O_y$ ", Y. Tsuchiya, K. Iwaya, **T. Hanaguri**, H. Kitano, A. Maeda, T. Nishizaki, K. Shibata and N. Kobayashi, Physica C **341-348**, 1189-1190 (2000).
 18. "Comparative study of thermal conductivity and surface impedance of $Bi_2Sr_2CaCu_2O_y$, the mixed state", A. Maeda, K. Iwaya, Y. Tsuchiya, H. Kitano, **T. Hanaguri**, J. Takeya, K. Nakamura and Y. Ando, Physica C **341-348**, 1871-1872 (2000).
 19. "High frequency surface impedance measurement in the mixed state of $Bi_2Sr_2CaCu_2O_y$ ", Y. Tsuchiya, K. Iwaya, **T. Hanaguri**, H. Kitano, A. Maeda, J. Takeya, K. Nakamura and Y. Ando, in "Advances in Superconductivity XII" Springer-Verlag, Tokyo, (2000) pp371-373.
 20. "Dynamics of vortices and quasiparticles in the mixed state of $Bi_2Sr_2CaCu_2O_y$ ", A. Maeda, T. Tsuboi, Y. Togawa, R. Abiru, Y. Tsuchiya, K. Iwaya, H. Kitano, **T. Hanaguri**, J. Takeya, K. Nakamura and Y. Ando, Physica C **335**, 148-152 (2000).
 21. "Study of dynamical phase of $Bi_2Sr_2CaCu_2O_y$ by local noise measurement", T. Tsuboi, **T. Hanaguri**, A. Maeda, R. Abiru, K. Iwaya and H. Kitano, Physica B **284-288**, 843-844 (2000).
 22. "STM/STS observations of Co impurities in $Bi_{2.1}Sr_{1.8}Ca(Cu_{1-x}Co_x)(2)O_{8+y}$ single crystals", XR. Zhao, S. Nakao, K. Ueno, G. Kinoda, T. Endo, **T. Hanaguri**, K. Kitazawa and T. Hasegawa,

- Physica B**284-288**, 1065-1066 (2000).
23. "*Metal-insulator transition in $IT-TaS_{2-x}Se_x$* ",
O. Shiino, T. Watanabe, T. Endo, **T. Hanaguri**, K. Kitazawa, M. Nohara, H. Takagi, C. Murayama, N. Takeshita, N. Mori, T. Hasegawa and W. Yamaguchi,
Physica B**284-288**, 1673-1674 (2000).
 24. "*A collective excitation on the slightly hole-doped ladders of $Sr_{14-x}Ca_xCu_2O_{41}$ in the microwave and millimeter wave regions*",
H. Kitano, R. Inoue, **T. Hanaguri**, A. Maeda, N. Motoyama, M. Takaba, H. Eisaki and S. Uchida
Physica B**284-288**, 1936-1937 (2000).
 25. "*Electronic structures of two-phase microstructures in Pb-doped $Bi_2Sr_2CaCu_2O_y$* ",
S. Nakao, K. Ueno, **T. Hanaguri**, K. Kitazawa, T. Fujita, Y. Nakayama, T. Motohashi, J. Shimoyama, K. Kishio and T. Hasegawa,
J. Low Temp. Phys. **117**, 341-345 (1999).
 26. "*Studies of both intralayer and interlayer electrostatics of $Bi_2Sr_2CaCu_2O_y$ in the superconducting state*",
H. Kitano, **T. Hanaguri**, Y. Tsuchiya, K. Iwaya, R. Abiru and A. Maeda,
J. Low Temp. Phys. **117**, 1241-1245 (1999).
 27. "*Site sensitive measurement of local fluctuation of driven vortex density in $Bi_2Sr_2CaCu_2O_y$* ",
A. Maeda, T. Tsuboi, **T. Hanaguri**, Y. Togawa, R. Abiru, Y. Tsuchiya and K. Iwaya,
J. Low Temp. Phys. **117**, 1329-1333 (1999).
 28. "*Effects of first-order vortex phase transition on the electronic states of $Bi_2Sr_2CaCu_2O_y$* ",
T. Hanaguri, Y. Tsuchiya, K. Iwaya, T. Tsuboi and A. Maeda,
J. Low Temp. Phys. **117**, 1405-1409 (1999).
 29. "*Ac charge dynamics in the Meissner state and the vortex state of $Bi_2Sr_2CaCu_2O_y$* ",
A. Maeda, **T. Hanaguri** and H. Kitano,
in "*Advances in Superconductivity XI*" Springer-Verlag, Tokyo, (1999) pp193-198.
 30. "*Superconducting phenomenology of cuprates: effect of pseudo-gap and other anomalies*",
T. Hanaguri, M. Naito and K. Kitazawa,
Physica C**318**, 345-352 (1999).
 31. "*Effects of heavy-ion irradiation on the Josephson plasma resonance in the mixed state of $Bi_2Sr_2CaCu_2O_y$* ",
Y. Tsuchiya, **T. Hanaguri**, A. Maeda and D. G. Steel,
In *Advances in Superconductivity X* Springer-Verlag, Tokyo, (1998) pp103-106.
 32. "*Josephson plasma resonance in the mixed state of $Bi_2Sr_2CaCu_2O_y$ containing columnar defects*",
T. Hanaguri, Y. Tsuchiya, S. Sakamoto, A. Maeda and D. G. Steel,
Physica C**282-287**, 2375-2376 (1997).
 33. "*Out-of-plane microwave conductivity of the cuprates in the superconducting state*",
H. Kitano, **T. Hanaguri** and A. Maeda,
Physica C**282-287**, 1125-1126 (1997).
 34. "*The static and dynamic properties of the vortices in $Bi_2Sr_2CaCu_2O_y$* ",
T. Tsuboi, **T. Hanaguri**, and A. Maeda,

- Physica C**282-287**, 1303-1304 (1997).
35. "Phase correlation investigated by the Josephson plasma resonance in $\text{Bi}_2(\text{Sr},\text{La})_2\text{CuO}_y$ ",
A. Maeda, Y. Tsuchiya, **T. Hanaguri**, S. Sakamoto, H. Ikeda and R. Yoshizaki,
Physica C**293**, 143-148 (1997).
 36. "Josephson plasma resonance in the mixed state of heavy-ion irradiated $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_y$ ",
Y. Tsuchiya, **T. Hanaguri**, A. Maeda and D. G. Steel,
Physica C**293**, 254-258 (1997).
 37. "Anisotropic quasiparticle conductivity in the superconducting state of high- T_c cuprates in microwave region",
H. Kitano, A. Maeda and **T. Hanaguri**,
in "Advances in Superconductivity IX" Springer-Verlag, Tokyo, (1997) pp127-130.
 38. "Josephson-plasma resonance of Bi-cuprates",
A. Maeda, S. Sakamoto, **T. Hanaguri**, H. Ikeda and R. Yoshizaki,
Czech. J. Phys. **46**, Suppl. S3, 1635-1636 (1996).
 39. "Phase transition in the mixed state of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_y$ observed by local and macroscopic magnetometry",
T. Hanaguri, T. Tsuboi, A. Maeda, Y. Kotaka, J. Shimoyama and K. Kishio,
Czech. J. Phys. **46**, Suppl. S3, 1559-1560 (1996).
 40. "Out-of-plane quasiparticle dynamics of the cuprate superconductors below T_c in microwave region",
A. Maeda, H. Kitano, **T. Hanaguri**, T. Shibauchi and K. Uchinokura,
J. Low Temp. Phys., **105**, 323-328 (1996).
 41. "Nonlinear Meissner effect of the cuprate superconductors investigated by London penetration depth measurement",
A. Maeda, **T. Hanaguri**, Y. Iino, S. Masuoka, Y. Matsushita, M. Hasegawa and H. Takei,
Physica C**263**, 438-441 (1996).
 42. "Doping level dependence of magnetization anomalies and heat capacity of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ in the mixed state",
T. Hanaguri, T. Tsuboi, A. Maeda, T. Nishizaki, N. Kobayashi, Y. Kotaka, J. Shimoyama and K. Kishio,
Physica C**263**, 434-437 (1996).
 43. "Ultrasonic studies of anisotropic flux pinning in $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$ under high magnetic fields",
T. Fukase, M. Kamata, **T. Hanaguri**, T. Sasaki, T. Suzuki, T. Goto, I. Tanaka and H. Kojima,
Physica B**216**, 274-276 (1996).
 44. "High precision magnetization and heat capacity measurements of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_y$ single crystals in the mixed state",
T. Tsuboi, **T. Hanaguri**, A. Maeda, T. Nishizaki, N. Kobayashi, Y. Kotaka, J. Shimoyama and K. Kishio,
in "Advances in Superconductivity VIII" (ed. H. Hayakawa and Y. Enomoto) Springer-Verlag, Tokyo, (1996) pp205-208.
 45. "Microwave absorption in the mixed state of $(\text{Bi or Tl})_2(\text{Sr or Ba})_2\text{Ca}_{n-1}\text{Cu}_n\text{O}_y$ ",
A. Maeda, S. Sakamoto, **T. Hanaguri**, Y. Kotaka, J. Shimoyama, K. Kishio, Y. Matsushita, M. Hasegawa,
H. Takei, H. Ikeda and R. Yoshizaki,

- in “*Advances in Superconductivity VIII*” (ed. H. Hayakawa and Y. Enomoto) Springer-Verlag, Tokyo, (1996) pp185-188.
46. “*Surface impedance of single crystals of high T_c cuprates as a function of magnetic field*”,
A. Maeda, Y. Iino and **T. Hanaguri**,
Synth. Met., **71**, 1587-1588 (1995).
47. “*Dynamical coherence volume of spin-density waves of $(TMTSF)_2PF_6$* ”,
A. Maeda, H. Kitabayashi, K. Uchinokura, A. Kitamura, **T. Hanaguri**, H. Mori, I. Hirabayashi and S. Tanaka,
Synth. Met., **70**, 1291-1292 (1995).
48. “*RF field penetration into a $Bi_2Sr_2CaCu_2O_8$ single crystal in the mixed state*”,
T. Hanaguri, Y. Iino, A. Maeda, N. Motohira and K. Kishio,
Physica C**235-240**, 1991-1992 (1994).
49. “*Magnetic-field dependence of the London penetration depth of $Bi_2Sr_2CaCu_2O_y$* ”,
A. Maeda, Y. Iino, **T. Hanaguri**, N. Motohira and K. Kishio,
Physica C**235-240**, 1809-1810 (1994).
50. “*Anisotropy of the flux pinning in $La_{1.85}Sr_{0.15}CuO_4$ observed by ultrasound*”,
T. Hanaguri, T. Fukase, I. Tanaka and H. Kojima,
Physica B**194-196**, 1837-1838 (1994).
51. “*Elastic anomalies in a $La_{1.85}Sr_{0.15}CuO_4$ single crystal under high magnetic fields*”,
T. Hanaguri, T. Fukase, T. Suzuki, I. Tanaka and H. Kojima,
Physica B**194-196**, 1579-1580 (1994).
52. “*Synthesis of electron doped copper oxides free from 4f spins*”,
T. Goto, M. Fukunaga, K. Miyagawa, **T. Hanaguri** and T. Fukase,
in “*Advances in Superconductivity V*” (ed. Y. Bando and H. Yamauchi) Springer-Verlag, Tokyo, (1993) pp267-270.
53. “*Ultrasonic studies in $La_{2-x}(Ba,Sr)_xCuO_y$* ”,
T. Hanaguri, T. Fukase, T. Goto and Y. Iwabuchi,
in “*The Physics and Chemistry of Oxide Superconductors*” (ed. Y. Iye and H. Yasuoka) Springer-Verlag, Berlin, Heidelberg, (1992) pp217-220.
54. “*Ultrasonic studies in the $La_{1.85}Sr_{0.15}CuO_4$ single crystal under the magnetic field*”,
T. Hanaguri, R. Toda, T. Fukase, I. Tanaka and H. Kojima,
Physica C**185-189**, 1395-1396 (1991).
55. “*Anisotropy of upper critical field in the $(110)_t$ and $(001)_t$ planes for single-crystal $La_{1.86}Sr_{0.14}CuO_4$* ”,
T. Hanaguri, T. Fukase, Y. Koike, I. Tanaka and H. Kojima,
Physica B**165-166**, 1449-1450 (1990).
56. “*Ultrasonic studies of structural phase transitions and superconductivity in $La_{2-x}Ba_xCuO_{4-\delta}$ and $La_{2-x}Sr_xCuO_{4-\delta}$* ”,
T. Fukase, T. Nomoto, **T. Hanaguri**, T. Goto and Y. Koike,
Physica B**165-166**, 1289-1290 (1990).

Reviews, Books etc.

1. “STM/STS で見た鉄系超伝導体の超伝導体ギャップ”,
花栗哲郎,
材料の科学と工学 **Vol. 48 No. 2**, 52-56 (2011).
2. “超伝導体を探る針～分光イメージング走査型トンネル顕微鏡～”,
花栗哲郎,
日本物理学会誌 **Vol. 66 No. 3**, 186-194 (2011).
3. “STM で見る高温超伝導体の渦芯”,
花栗哲郎,
パリティ **Vol. 23 No. 10**, 50-54 (2008).
4. “Dual realities in superconductors”,
Tetsuo Hanaguri,
Nature **454**, 1062-1063 (2008).
5. “電子分光用走査型トンネル顕微鏡”,
花栗哲郎,
検査技術 **Vol. 13 No. 9**, 31-39 (2008).
6. “強相関酸化物表面の電子状態”,
花栗哲郎,
表面科学 **27**, 226-231 (2006).
7. “高温超伝導体中に形成された電子結晶”,
岩谷克也, 花栗哲郎, 高木英典,
機能材料 **25**, 48-52 (2005).
8. “磁区・磁束の直接観察”,
花栗哲郎 (分担執筆),
実験化学講座 第7巻 電気物性, 磁気物性 (中村敏和編集) 丸善 (2004).
9. “Dynamics of vortices in high- T_c superconductors investigated by density and conduction noise measurements”,
A. Maeda, Y. Togawa, T. Hanaguri and H. Kitano,
in “Studies of high temperature superconductors Vol. 41”, (ed. A. Narlikar) Nova Science Publishers, New York (2002) pp247-274.
10. “Magnetic field dependence of the surface impedance in superconductors”,
A. Maeda and T. Hanaguri,
Superconductivity Review, **3**, pp1-49 (1998).
11. “Anisotropy of the flux pinning and elastic anomalies under high magnetic fields in $La_{2-x}Sr_xCuO_4$ ”,
T. Fukase, T. Hanaguri, M. Kamata, K. Ishizuka T. Suzuki, T. Goto and T. Sasaki,
Sci. Rep. Res. Inst. Tokohu Univ. **A42**, 327-331 (1996).
12. “Ultrasonic studies of a single crystalline $La_{1.85}Sr_{0.15}CuO_4$ in high magnetic fields”,
T. Hanaguri, T. Fukase, I. Tanaka and H. Kojima,
Sci. Rep. Res. Inst. Tokohu Univ. **A38**, 362-371 (1993).

13. *"Ultrasonic and NQR studies of structural phase transitions and superconductivity in $La_{2-x}(Ba,Sr)_xCuO_4$ ",*
T. Fukase, **T. Hanaguri**, T. Nomoto, T. Goto, Y. Koike, T. Shinohara, T. Sato, I. Tanaka and H. Kojima,
JJAP Series 7: Mechanisms of Superconductivity, (1992) pp213-218.

Invited presentations

1. “*STM/STS studies of iron-based superconductors*”
T. Hanaguri
International Workshop “Iron-Based Superconductors, Mar. 21-23, 2012, Munich, Germany.
2. “*STM/STS Studies of a Topological Insulator in a Magnetic field*”
T. Hanaguri
FIRST QS2C Theory Forum "RIKEN-APW-APCTP Joint Workshop", Jan. 14-16, 2012, Wako, Japan.
3. “*STM/STS studies of Landau quantization in a topological insulator*”
T. Hanaguri
The 2nd ASRC International Workshop on Magnetic Materials and Nanostructures, Jan. 10-13, 2012, Tokai, Japan.
4. “*Magnetic Field Effects on a Topological Insulator Studied by STM/STS*”
T. Hanaguri
19th International Colloquium on Scanning Probe Microscopy, Dec. 19-21, 2011, Toyako, Japan.
5. “*STM/STS studies of a topological insulator*”
T. Hanaguri
Novel Quantum States in Condensed Matter 2011 (NQS2011), Nov. 21-25, 2011, Kyoto, Japan.
6. “*分光イメージングSTM を用いた電子状態の研究*”
花栗哲郎
第二回表面科学若手研究会, 2011年11月19日 - 11月20日, 理化学研究所.
7. “*STM/STS studies of Dirac surface state in Bi_2Se_3 under magnetic fields*”
T. Hanaguri
Topological Insulators and Superconductors, Aug. 18-21, 2011, Beijing, China.
8. “*Spectroscopic-Imaging STM Studies of Superconducting Gap in Unconventional Superconductors*”
T. Hanaguri
The 26th International Conference on Low Temperature Physics, Aug. 10-17, 2011, Beijing, China.
9. “*STM/STS Studies of Defects and Vortices in $LiFeAs$* ”
T. Hanaguri
The International Conference on Novel Superconductivity, Aug. 4-9, 2011, Tainan, Taiwan.
10. “*STM/STS Studies of Defects and Vortices in $LiFeAs$* ”
T. Hanaguri, K. Kitagawa, K. Matsubayashi, Y. Mazaki, Y. Uwatoko, M. Takigawa, Bumsung Lee, Seunghyun Khim, Kee Hoon Kim and H. Takagi
Search for new physics in transition metal compounds by spectroscopies, July 28-30, 2011, Sendai, Japan.
11. “*STM/STS studies on iron-based superconductors*”
T. Hanaguri
The 4th workshop for Emergent Materials Research, July 11-13, 2011, Pohang, Korea.
12. “*Landau quantization of Dirac fermions in a topological insulator*”
T. Hanaguri
The 4th international workshop on Emergent Phenomena of Quantum Hall Systems, June 23-25, 2011,

Beijing, China.

13. “STM/STS で見た鉄系超伝導体の超伝導ギャップ”

花栗哲郎

基研研究会「鉄系高温超伝導の物理」, 2011年6月16日 - 6月17日, 京都大学.

14. “STM/STS studies of the superconducting gap in iron-based superconductors”

T. Hanaguri

Gordon Research Conference on Superconductivity, June 5-10, 2011, Waterville Valley, USA.

15. “Superconducting gaps of iron-based superconductors investigated by STM/STS”

T. Hanaguri

KIAS workshop on "Frontiers in Condensed Matter Physics", May 9-12, 2011, Seoul, Korea.

16. “STM/STS studies of a topological insulator”

T. Hanaguri

KIAS workshop on "Frontiers in Condensed Matter Physics", May 9-12, 2011, Seoul, Korea.

17. “Landau-level spectroscopies of a topological insulator”

T. Hanaguri

2011 APS March Meeting, Mar. 21-25, 2011, Dallas, USA. (Because of the difficult situation related to the earthquake, I could not visit Dallas and I presented via internet.)

18. “STM/STS studies of the superconducting gap in iron-based superconductors”

T. Hanaguri

Aspen Winter Conference “Contrasting Superconductivity of Pnictides and Cuprates”, Jan. 22-28, 2011, Aspen, USA.

19. “STM/STS studies on iron-based superconductors”

T. Hanaguri

KITP workshop on the Iron-Based Superconductors, Jan. 10-21, 2011, Santa Barbara, USA.

20. “Landau Quantization of Dirac Surface State in a Topological Insulator”

T. Hanaguri

2011 Frontiers in Nanoscale Science and Technology Workshop, Jan. 5-7, 2011, Wako, Japan.

21. “STM/STS studies on iron-based superconductors”

T. Hanaguri

9th Asia-Pacific Workshop on Material Physics, Dec. 13-15, 2010, Hanoi, Vietnam.

22. “分光イメージングSTM”

花栗哲郎

表面・界面スペクトロスコープ2010 2010年12月3日 - 12月4日, 筑波山京成ホテル.

23. “Phase-sensitive STM studies on cuprate and iron-based superconductors”

T. Hanaguri

JSPS A3 Foresight Program Autumn School for Young Scientists, Nov. 7-11, 2010, Kyoto, Japan.

24. “Spectroscopic-imaging STM studies on unconventional superconductors”

T. Hanaguri

Korean Physical Society autumn meeting, October 20-23, 2010, Phoenix Park, Korea.

25. *“Landau-level spectroscopy of Dirac surface state in a topological insulator”*
T. Hanaguri
SpinAge 2010 Retreat, August 27-31, 2010, Watsonville, USA.
26. *“Spectroscopic-imaging STM studies on unconventional superconductors”*
T. Hanaguri
18th International Vacuum Congress, August 23-27, 2010, Beijing, China.
27. *“Landau-level spectroscopy of helical Dirac fermions in a topological insulator Bi_2Se_3 ”*
T. Hanaguri
Workshop on Principles and Design of Strongly Correlated Electronic Systems, August 2-13, 2010, Trieste, Italy.
28. *“Phase-sensitive spectroscopic-imaging STM studies of unconventional superconductors”*
T. Hanaguri
The International Conference on Low-Energy Electrodynamics in Solids 2010, July 5-10, 2010, Les Diablerets, Switzerland.
29. *“Spectroscopic-Imaging Scanning Tunneling Microscopy on Iron-Based Superconductors”*
Tetsuo Hanaguri, Seiji Niitaka, Kazuhiko Kuroki, and Hidenori Takagi
The 9th International Conference on Spectroscopies in Novel Superconductors, May 24-28, 2010, Shanghai, China.
30. *“Spectroscopic-Imaging STM at High Magnetic Fields”*
T. Hanaguri
6th Annual Nanoprobes Workshop, Center for Probing the Nanoscale, Stanford University, May 14, 2010, Stanford, USA.
31. *“分光イメージングSTM で見た鉄系超伝導体のギャップ対称性”*
花栗哲郎
日本物理学会 2010 年第 65 回年次大会 2010 年 3 月 20 日 - 3 月 23 日, 岡山大学.
32. *“分光イメージングSTM を用いた非従来型超伝導の研究”*
花栗哲郎
文部科学省「最先端・高性能汎用スーパーコンピュータの開発利用」プロジェクト 次世代ナノ統合シミュレーションソフトウェアの研究開発 第 4 回公開シンポジウム, 2010 年 3 月 3 日 - 3 月 4 日, 自然科学研究機構 岡崎コンファレンスセンター.
33. *“Spectroscopic-Imaging Scanning Tunneling Microscopy - Emerging Tool for Exploring Electronic States of Complex Materials -”*
T. Hanaguri
2010 HYU-RIKEN Collaboration Workshop, January 5, 2010, Jeju, Korea.
34. *“Sign-reversing s-wave Superconductivity in an Iron-based Superconductor Probed by Phase-sensitive STM”*
T. Hanaguri
The RIKEN Workshop on "Emergent Phenomena of Correlated Materials, December 2-4, 2009, Wako, Japan.

35. “鉄系超伝導体のSTM”

花栗哲郎

ワークショップ「鉄系高温超伝導体研究の最前線」～「メカニズムおよび物性のレビューと展望」
～, 2009年11月28日, 日本原子力研究開発機構システム計算科学センター.

36. “*Relationship between the Vortex 'Checkerboard' and the Quasi-Particle Interference in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_y$* ”

T. Hanaguri

12th International Workshop on Vortex Matter in Superconductors, Sept. 12-19, 2009, Lake Yamanaka, Japan.

37. “*Phase-sensitive quasi-particle interference effects in high- T_c superconductors*”

T. Hanaguri

9th International Conference on Materials and Mechanisms of Superconductivity (M²S-IX), Sept. 7-12, 2009, Tokyo, Japan.

38. “*Spectroscopic-imaging STM studies on iron-based superconductors*”

T. Hanaguri

ICC-IMR workshop "Physics on Transition Metal Based Superconductors", June 24-26, 2009, Sendai, Japan.

39. “*Scanning Tunneling Microscopy As A Tool for Exploring The Electronic States of Complex Materials*”

T. Hanaguri

3rd International Conference on Science and Technology for Advanced Ceramics (STAC3), June 16-18, 2009, Yokohama, Japan.

40. “*Magnetic-field effects on the quasi-particle interference in cuprates*”

T. Hanaguri

Gordon Research Conference on Superconductivity, June 7-12, 2009, Hong Kong, China.

41. “*Possible Quantum-Limit Vortex Core in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_y$* ”

T. Hanaguri

Joint JSPS-ESF International Conference on Nanoscience and Engineering in Superconductivity, March 23-26, 2009, Tsukuba, Japan.

42. “*Quasi-Particle Interference Effect as a Probe of the Phase of the Superconducting Gap*”

T. Hanaguri

AIST-RIKEN Joint Workshop on "Emergent Phenomena of Correlated Materials", March. 4-7, 2009, Okinawa, Japan.

43. “*Spectroscopic-imaging STM on a $\text{PrFeAsO}_{0.7}$ single crystal*”

T. Hanaguri

International Workshop on Iron Related High- T_c Superconductors (IRiSes2009), Jan. 25, 2009, Tokyo, Japan.

44. “*STM/STS を用いた新しい対波動関数対称性決定法*”

花栗哲郎

研究会「鉄ニクタイト物質系における超伝導ペア対称性と超伝導状態」 2009年1月24日, 日本原子力研究開発機構システム計算科学センター.

45. “Spectroscopic-imaging STM studies of cuprates under high magnetic fields - vortex checkerboard revisited”

T. Hanaguri

International Workshop on Inelastic Neutron and X-Ray Scattering in Strongly Correlated Electron Systems, Oct. 1-3, 2008, Sendai, Japan.

46. “Quasiparticle interference and coherence effects of high- T_c superconductor: STM/STS as a reciprocal-space probe”

花栗哲郎

日本物理学会 2008 年秋季大会 2008 年 9 月 20 日 - 9 月 23 日, 岩手大学.

47. “Superconducting Gap and Coherence Effect of a High- T_c Cuprate $Ca_{2-x}Na_xCuO_2Cl_2$ Probed by Quasi-particle Interference”

T. Hanaguri

The International Conference on Quantum Phenomena in Complex Matter of the series on Stripes and High T_c Superconductivity (Stripes08), Jul. 27-31, 2008, Erice, Italy.

48. “Quasi-particle interference and coherence factors in $Ca_{2-x}Na_xCuO_2Cl_2$ ”

T. Hanaguri

ESF-NES workshop "Probing superconductivity at the nanoscale", June 4-7, 2008, Alicante, Spain.

49. “Internal structure of vortex core in $NbSe_2$ ”

T. Hanaguri

The 4th CREST Nano-Virtual-Labs Joint Workshop on Superconductivity: Critical Currents (NVLS2007-CC), Dec. 17-18 2007, Kitakyushu, Japan.

50. “Quasi-Particle Interference, Superconducting Gap and Coherence Effect in a High- T_c Superconductor $Ca_{2-x}Na_xCuO_2Cl_2$ ”

T. Hanaguri

8th Korea-Japan-Taiwan Symposium on Strongly Correlated Electron Systems (KJT-2007), Nov. 15-17 2007, Incheon, Korea.

51. “Possible combined multi-band and gap-anisotropy effects in the vortex core of $NbSe_2$ ”

T. Hanaguri

20th International Symposium on Superconductivity (ISS2007), Nov. 5-7 2007, Tsukuba, Japan.

52. “d-wave quasi-particle interference and Fermi arc in $Ca_{2-x}Na_xCuO_2Cl_2$ ”

T. Hanaguri

The 8th International Conference on Spectroscopies in Novel Superconductors (SNS2007), Aug. 20-24 2007, Sendai, Japan.

53. “Superconducting gap in a cuprate studied by the quasi-particle interference effect”

T. Hanaguri

NSFC-JSPS Joint Conference on Novel Quantum Phenomena in Strongly Correlated Electronic Systems, June 25 -29 2007, Beijing, China.

54. “先端分光法で見る酸化物高温超伝導の電子状態”

花栗哲郎

- 超伝導科学技術研究会第 33 回シンポジウム, 2007 年 4 月 17 日, 虎ノ門パストラル.
55. “電子状態評価ツールとしての STM の高安定化広パラメータ化”
花栗哲郎
日本表面科学会第 54 回表面科学研究会, 2007 年 3 月 9 日, 東京大学.
56. “Low energy spectroscopic mapping studies on $Ca_{2-x}Na_xCuO_2Cl_2$ ”,
T. Hanaguri
Sixth International Conference on New Theories, Discoveries and Applications of Superconductors and Related Materials, Jan. 9-11 2007, Sydney, Australia.
57. “汎用電子状態解像ツールを目指した STM/STS 開発”
花栗哲郎
第 44 回茅コンファレンス, 2006 年 9 月 8 日 - 9 月 11 日, 裏磐梯.
58. “Electronic “checkerboard” and superconductivity in $Ca_{2-x}Na_xCuO_2Cl_2$ ”
T. Hanaguri
International Workshop on Mesoscopic Superconductivity and Magnetism, Aug. 28 - Sept. 1 2006, Chicago, USA.
59. “Development of high-field STM and its application to the study on magnetically-tuned criticality in $Sr_3Ru_2O_7$ ”
T. Hanaguri
The 8th International Conference on Research in High Magnetic Fields, Aug. 16 - 19 2006, Sendai, Japan.
60. “強相関電子系酸化物の STM/STS による局所電子状態評価”
花栗哲郎
第 46 回真空に関する連合講演会 2005 年 11 月 9 日 - 11 月 11 日, 学習院大学.
61. “高温超伝導体におけるチェッカーボード状電荷秩序”
花栗哲郎
日本物理学会 2005 年秋季大会 2005 年 9 月 19 日 - 9 月 22 日, 同志社大学.
62. “STM/STS Studies on Strongly Correlated Electron Systems”
T. Hanaguri
6th Pacific Rim Conference on Ceramic and Glass Technology, Sept. 11-16, 2005, Maui, USA.
63. “Electronic crystal state in a hole doped cuprate”
T. Hanaguri,
2005 APS March Meeting, Mar. 21-25, 2005, Los Angeles, USA.
64. “A ‘checkerboard’ electronic crystal state in lightly doped cuprate”
T. Hanaguri,
The 9th APCTP Winter Workshop on Strongly Correlated Electron Systems, Feb. 15-19, 2005, Phoenix Park, Korea.
65. “STM/STS studies on strongly correlated electron systems”
T. Hanaguri,
The 9th APCTP Winter Workshop on Strongly Correlated Electron Systems, Feb. 15-19, 2005, Phoenix Park, Korea.

66. *“Evolution of Electronic States and Hidden Order in Lightly Doped $Ca_{2-x}Na_xCuO_2Cl_2$ - STM/STS study - ”*
T. Hanaguri,
 The 4th International Workshop on Novel Quantum Phenomena in Transition Metal Oxides, Nov. 22-24, 2004, Sendai, Japan.
67. *“STM/STS studies on a lightly-doped cuprate $Ca_{2-x}Na_xCuO_2Cl_2$ ”*
T. Hanaguri,
 Yukawa International Seminar 2004, Nov. 1-4, 2004, Kyoto, Japan.
68. *“STM of lightly doped 'calcium' copper oxy-chlorides ”*
T. Hanaguri,
 Gordon Research Conference on Superconductivity, Sept. 19-24, 2004, Oxford, UK.
69. *“Imaging the Electronic Inhomogeneity in Underdoped Cuprates”*
T. Hanaguri,
 The 11th Japan-US Workshop on High- T_c Superconductors, Oct. 31-Nov. 2, 2003, Shonan, Japan.
70. *“Imaging the Electronic Phase Separation in Strongly Correlated Electron Systems by STM/STS”*,
T. Hanaguri,
 1st RIKEN Nanoscience Symposium, May 26-27, 2003, Wako, Japan.
71. *“Spatial variation of the electronic states near the metal to Mott insulator transitions”*,
T. Hanaguri and H. Takagi,
 Workshop on “Phase Competition in Transition-Metal Oxides and Other Compounds”, May 14-16, 2003, Berkeley, USA.
72. *“Spatial variation of the electronic states near the metal to Mott insulator transitions”*,
T. Hanaguri,
 Fourth International Conference on New Theories, Discoveries, and Applications of Superconductors and Related Materials (New³SC-4), Jan. 16-21, 2003, San Diego, USA.
73. *“Electronic States of heavily underdoped $Ca_{2-x}Na_xCuO_2Cl_2$ investigated by STM/STS”*,
T. Hanaguri,
 The 15th International Symposium on Superconductivity (ISS-2002), Nov. 11-13, 2002, Yokohama, Japan.
74. *“Electronic states of vortices in clean s-wave superconductors”*,
T. Hanaguri,
 International Workshop on Quantum Transport in Synthetic Metals & Quantum Functional Semiconductors, 2001 (QTSM2001), May 9-11, 2001, Seoul, Korea.
75. *“Superfluid response around the vortex phase transition in $Bi_2Sr_2CaCu_2O_y$ ”*,
T. Hanaguri,
 International Workshop on Vortex Physics in High-Temperature Superconductors'99, June 20-25, 1999, Stanford, USA.
76. *“Quasi-particle excitation in the mixed state of $Bi_2Sr_2CaCu_2O_y$ ”*,
T. Hanaguri,
 International Workshop on Vortex Physics in High-Temperature Superconductors'98 June 21-26, 1998, Hachimantai, Japan.

Contributed oral presentations at international conferences

1. *"STM/STS Studies of Superconducting Gap in Iron-Based Superconductors"*,
T. Hanaguri, S. Niitaka, K. Kuroki, and H. Takagi
International Workshop on Novel Superconductors and Super Materials 2011, Mar. 6-8, Tokyo, Japan.
2. *"Sign-Reversing s-Wave Superconductivity Probed by High-Field STM"*,
T. Hanaguri,
Joint IMR International Symposium High Magnetic Field Spin Science in 100T VI Application of High Magnetic Field for Condensed Matter and Material Sciences, Dec. 7-9, 2009, Sendai, Japan.
3. *"Magnetic-field Effects on the d-wave Bogoliubov Quasi-Particles and Superconducting Gap in $Ca_{2-x}Na_xCuO_2Cl_2$ "*,
T. Hanaguri, Y. Kohsaka, M. Ono, J. C. Davis, C. Lupien, I. Yamada, M. Azuma, M. Takano, K. Ohishi, and H. Takagi,
4th International Symposium on High Magnetic Field Spin Science in 100T, Nov. 26-28, 2007, Sendai, Japan.
4. *"Effects of first-order vortex phase transition on the electronic states of $Bi_2Sr_2CaCu_2O_y$ "*,
T. Hanaguri, Y. Tsuchiya, K. Iwaya, T. Tsuboi, and A. Maeda,
Physics and Chemistry of Molecular and Oxide Superconductors '99 (MOS'99), July 28-Aug. 2, 1999, Stockholm, Sweden.
5. *"Josephson plasma resonance in the mixed state of $Bi_2Sr_2CaCu_2O_y$ containing columnar defects"*,
T. Hanaguri, Y. Tsuchiya, S. Sakamoto, A. Maeda, and D. G. Steel,
5th International Conference Materials and Mechanisms of Superconductivity High Temperature Superconductors (M2S-HTSC-V), Feb. 28-Mar. 4, 1997, Beijing, China.
6. *"Phase transition in the mixed state of $Bi_2Sr_2CaCu_2O_y$ observed by local and macroscopic magnetometry"*,
T. Hanaguri, T. Tsuboi, A. Maeda, Y. Kotaka, J. Shimoyama, and K. Kishio,
21st International Conference on Low Temperature Physics (LT21), Aug. 8-14, 1996, Prague, Czech Republic.
7. *"Phase transition in the vortex system of $Bi_2Sr_2CaCu_2O_y$ observed by local and macroscopic magnetometry"*,
T. Hanaguri, T. Tsuboi, and A. Maeda
International Work-Shop on New Physics in the Vortex State of the High Temperature Superconductors (IWPV '96), Apr. 11-13, 1996, Hatoyama, Japan.

Seminars & lectures (official ones only)

1. “走査型トンネル顕微鏡を用いた電子状態解析”,
花栗哲郎
集中講義, 広島大学先端物質科学研究科, 2012年5月9日 - 5月11日
2. “STM/STS で見るトポロジカル絶縁体の磁場中 Dirac 表面電子状態”,
花栗哲郎
第 444 回物性セミナー, 広島大学先端物質科学研究科, 2012年5月9日
3. “Spectroscopic-imaging STM studies of unconventional superconductors”,
T. Hanaguri,
超导物理和材料研究中心学术报告系列, 南京大学 Aug. 23, 2011, Nanjing, China.
4. “Development of stable STM and its application to a topological insulator”,
T. Hanaguri,
超导物理和材料研究中心学术报告系列, 南京大学 Aug. 23, 2011, Nanjing, China.
5. “STM/STS studies on exotic materials”,
T. Hanaguri,
Department of physics seminar series, Boston College June 10, 2011, Boston, USA.
6. “走査型トンネル顕微鏡を用いた電子状態研究の進展”,
花栗哲郎
集中講義, 東京大学総合文化研究科, 2010年12月20日 - 12月22日
7. “STM/STS studies of Dirac surface state in a topological insulator”,
T. Hanaguri,
CMRI seminar, Seoul National Univ. Oct. 23, 2010, Seoul, Korea.
8. “STM/STS search for unusual electronic states”,
T. Hanaguri,
Seminars in condensed-matter physics, Stanford Univ. May. 13, 2010, Stanford, USA.
9. “波数空間プローブとしての STM/STS”,
花栗哲郎
物性セミナー, 東京大学総合文化研究科, 2009年7月3日
10. “電子状態イメージング STM の開発と高温超伝導体への応用”,
花栗哲郎
物性談話会, 名古屋大学工学研究科, 2008年12月16日
11. “STM で見た高温超伝導体の波数空間電子状態”,
花栗哲郎
第 111 回応用セラミックス研究所講演会, 東京工業大学応用セラミックス研究所, 2008年2月22日
12. “STM/STS Studies on Strongly Correlated Electron Systems: Search for Electronic Phase Separation Near the Metal-to-Mott-Insulator Transitions”,
T. Hanaguri,
LASSP solid state and theory seminars, Cornell Univ. Sept. 16, 2003, Ithaca, USA.

13. *"Phase Transition and Dynamics of Vortices in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_y$ "*,

花栗哲郎

超電導工学研究所セミナー, 超電導工学研究所, 1998年1月29日