

- 1) Y.-J. Kim, S.-H. Lee, J. D. Hwang, T. W. Noh, and S. I. Yun, "Far-Infrared Investigation of the generalized Lyddane-Sachs-Teller Relation using Lithium Borate Glasses", *J. Korean Phys. Soc.* **27**, 430-435 (1994).
- 2) Y.-J. Kim, S.-H. Lee, T. W. Noh, and J. Kim, "Infrared properties of barium borate glasses: application of the generalized Lyddane-Sachs-Teller relation", *J. Non-Cryst. Solids* **170**, 190-199 (1994).
- 3) Amnon Aharony, R. J. Birgeneau, C. W. Garland, Y. J. Kim, V. V. Lebedev, R. R. Netz, and M. J. Young, "Critical Behavior of the Structure Factor for Higher Harmonics in Density Wave Systems", *Phys. Rev. Lett.* **74**, 5064-5067 (1995).
- 4) F. C. Chou, A. Aharony, R. J. Birgeneau, O. Entin-Wohlman, M. Greven, A. B. Harris, M. A. Kastner, Y. J. Kim, D. S. Kleinberg, Y. S. Lee, and Q. Zhu, "Ferromagnetic Moment and Spin Rotation Transitions in Tetragonal Antiferromagnetic $\text{Sr}_2\text{Cu}_3\text{O}_4\text{Cl}_2$ ", *Phys. Rev. Lett.* **78**, 535-538 (1997).
- 5) Q. J. Harris, Q. Feng, Y. S. Lee, Y. J. Kim, R. J. Birgeneau, A. Ito, "A Synchrotron X-ray study of the phases and phase transitions in the mixed Ising-XY magnet $\text{Fe}_x\text{Co}_{1-x}\text{TiO}_3$ ", *Z. Phys. B* **102**, 163-182 (1997).
- 6) K. Yamada, C. H. Lee, K. Kurahashi, J. Wada, S. Wakimoto, S. Ueki, H. Kimura, Y. Endoh, S. Hosoya, G. Shirane, R. J. Birgeneau, M. Greven, M. A. Kastner, and Y. J. Kim, "Doping Dependence of the Spatially Modulated Dynamical Spin Correlations and the Superconducting $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ ", *Phys. Rev. B* **57**, 6165-6172 (1998).
- 7) C. Kim, P. J. White, Z.-X. Shen, T. Tohyama, Y. Shibata, S. Maekawa, B. O. Wells, Y. J. Kim, R. J. Birgeneau, and M. A. Kastner, "Systematics of the ARPES Spectral Function of Cuprates: Insulator, Hole- and Electron-doped Superconductors", *Phys. Rev. Lett.* **80**, 4245-4248 (1998).
- 8) H. S. Choi, E. J. Choi, and Y. J. Kim, "Temperature dependence of the mid-infrared absorptions in undoped cuprate $\text{Sr}_2\text{CuO}_2\text{Cl}_2$ ", *Physica C* **304** 66-72 (1998).
- 9) Y. J. Kim, M. Greven, U.-J. Wiese, and R. J. Birgeneau, "Monte Carlo Study of Correlations in Quantum Spin Chains at Non-Zero Temperature", *Eur. Phys. J. B* **4**, 291-297 (1998).
- 10) M. A. Kastner, A. Aharony, R. J. Birgeneau, F. C. Chou, O. Entin-Wohlman, M. Greven, A. B. Harris, Y. J. Kim, Y. S. Lee, M. E. Parks, and Q. Zhu, "Ferromagnetism of $\text{Sr}_2\text{Cu}_3\text{O}_4\text{Cl}_2$ ", *Phys. Rev. B* **59**, 14702-14711 (1999).
- 11) Y. J. Kim, A. Aharony, R. J. Birgeneau, F. C. Chou, O. Entin-Wohlman, R. W. Erwin, M. Greven, A. B. Harris, M. A. Kastner, I. Ya. Korenblit, Y. S. Lee, and G. Shirane, "Ordering due to quantum fluctuations in the 2D Heisenberg Antiferromagnet $\text{Sr}_2\text{Cu}_3\text{O}_4\text{Cl}_2$ ", *Phys. Rev. Lett.* **83**, 852-855 (1999).
- 12) Y. J. Kim, R. J. Birgeneau, M. A. Kastner, Y. S. Lee, Y. Endoh, G. Shirane, and K. Yamada, "Quantum Monte Carlo study of weakly coupled spin ladders", *Phys. Rev. B* **60**, 3294-3304 (1999).
- 13) H. S. Choi, Y. S. Lee, T. W. Noh, E. J. Choi, Y. Bang, and Y. J. Kim, "Anomalous temperature dependence of charge-transfer excitation in the undoped cuprate $\text{Sr}_2\text{CuO}_2\text{Cl}_2$ ", *Phys. Rev. B* **60**, 4646-4652 (1999).
- 14) C. H. Lee, K. Yamada, Y. Endoh, G. Shirane, R. J. Birgeneau, M. A. Kastner, M. Greven, and Y. J. Kim, "Energy spectrum of spin fluctuations in superconducting $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ ($0.10 \leq x \leq 0.25$)", *J. Phys. Soc. Japan* **69**, 1170-1176 (2000).
- 15) F. Ronning, C. Kim, A. Damascelli, N. P. Armitage, D. H. Lu, K. M. Shen, L. L. Miller, Y. J. Kim, R. J. Birgeneau, M. A. Kastner, and Z.-X. Shen, "ARPES Features of the AF Insulators $\text{Sr}_2\text{CuO}_2\text{Cl}_2$ and $\text{Ca}_2\text{CuO}_2\text{Cl}_2$ close to the AF zone boundary", *Physica C*, **341-348**, 2087 (2000).
- 16) Y. J. Kim and R. J. Birgeneau, "Monte Carlo study of the $S=1/2$ and $S=1$ Heisenberg Antiferromagnet on a spatially anisotropic square lattice", *Phys. Rev. B* **62**, 6378-6384 (2000).
- 17) Y. J. Wang, Y. J. Kim, R. J. Christianson, S. C. Lamarra, F. C. Chou, and R. J. Birgeneau, "X-ray scattering study of two length scales in the critical fluctuations of CuGeO_3 ", *Phys. Rev. B* **63**, 052502 (2001).
- 18) J. P. Hill, C. S. Nelson, M. v. Zimmermann, Y. J. Kim, D. Gibbs, D. Casa, B. Keimer, Y. Murakami, C. Venkataraman, T. Gog, Y. Tomioka, Y. Tokura, V. Kiryukhin, T. Y. Koo, and S.-W. Cheong, "Orbital correlations in doped manganites", *Appl. Phys. A*, **73**, 723 (2001).
- 19) B. Parks, M. A. Kastner, Y. J. Kim, A. B. Harris, F. C. Chou, O. Entin-Wohlman and A. Aharony, "Magnetization measurements of antiferromagnetic domains in $\text{Sr}_2\text{Cu}_3\text{O}_4\text{Cl}_2$ ", *Phys. Rev. B* **63**, 134433 (2001).
- 20) V. Kiryukhin, Y. J. Kim, K. J. Thomas, F. C. Chou, R. W. Erwin, Q. Huang, M. A. Kastner, and R. J. Birgeneau, "Magnetic properties of the $S=1/2$ quasi-one-dimensional antiferromagnet CaCu_2O_3 ", *Phys. Rev. B* **63**, 144418 (2001).
- 21) C.S. Nelson, Y.J. Kim, J.P. Hill, Doon Gibbs, V. Kiryukhin, T.Y. Koo, and S-W. Cheong, "Structural Distortions in the Paramagnetic Insulating Phase of $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ ", *Proceedings of the Materials Research Society*, **678**, EE7.3 (2001).
- 22) Y. J. Kim, R. J. Birgeneau, F. C. Chou, R. W. Erwin, and M. A. Kastner, "Critical spin dynamics of the 2D quantum Heisenberg antiferromagnets: $\text{Sr}_2\text{CuO}_2\text{Cl}_2$ and $\text{Sr}_2\text{Cu}_3\text{O}_4\text{Cl}_2$ ", *Phys. Rev. Lett.* **86**, 3144-3147 (2001).

- 23) K. Katsumata, M. Hagiwara, Z. Honda, J. Satooka, A. Aharony, R. J. Birgeneau, F. C. Chou, O. Entin-Wohlman, A. B. Harris, M. A. Kastner, Y. J. Kim, and Y. S. Lee, "Direct observation of the quantum energy gap in $S=1/2$ tetragonal cuprate antiferromagnets", *Europhys. Lett.* **54**, 508-514 (2001).
- 24) Y. J. Kim, A. Aharony, R. J. Birgeneau, F. C. Chou, O. Entin-Wohlman, R. W. Erwin, M. Greven, A. B. Harris, M. A. Kastner, I. Ya. Korenblit, Y. S. Lee, B. O. Wells, and G. Shirane, "Neutron Scattering study of $\text{Sr}_2\text{Cu}_3\text{O}_4\text{Cl}_2$ ", *Phys. Rev. B* **64**, 024435 (2001).
- 25) A. B. Harris, A. Aharony, O. Entin-Wohlman, I. Ya. Korenblit, R. J. Birgeneau, and Y. J. Kim, "Quantum fluctuations in the frustrated antiferromagnet $\text{Sr}_2\text{Cu}_3\text{O}_4\text{Cl}_2$ ", *Phys. Rev. B* **64**, 024436 (2001).
- 26) M. v. Zimmermann, C. S. Nelson, Y. J. Kim, J. P. Hill, D. Gibbs, H. Nakao, Y. Wakabayashi, Y. Murakami, Y. Tokura, Y. Tomioka, C. C. Kao, D. Casa, C. Venkataraman, and T. Gog, "La and Pr ordering in LaMnO_3 and $\text{Pr}_{0.75}\text{Ca}_{0.25}\text{MnO}_3$ - a resonant x-ray scattering study of octahedral tilting", *Phys. Rev. B* **64**, 064411 (2001).
- 27) C. S. Nelson, M. v. Zimmermann, Y. J. Kim, J. P. Hill, D. Gibbs, V. Kiryukhin, T. Y. Koo, S.-W. Cheong, D. Casa, B. Keimer, Y. Tomioka, Y. Tokura, T. Gog, and C. T. Venkataraman, "Correlated polarons in dissimilar perovskite manganites", *Phys. Rev. B* **64**, 174405 (2001).
- 28) V. Kiryukhin, T. Y. Koo, Y. J. Kim, C. S. Nelson, J.P. Hill, D. Gibbs, and S.-W. Cheong, "Common features of charge-ordered nanoclusters in magnetoresistive manganites with ferromagnetic low-temperature state", *Phys. Rev. B* **65**, 094421 (2002).
- 29) C. Kim, F. Ronning, A. Tamascelli, D. L. Feng, Z.-X. Shen, B. O. Wells, Y. J. Kim, R. J. Birgeneau, M. A. Kastner, L. L. Miller, H. Eisaki, and S. Uchida, "Anomalous temperature dependence in the photoemission spectral function of cuprates", *Phys. Rev. B* **65**, 174516 (2002).
- 30) Y. J. Kim, S. Wakimoto, S. M. Shapiro, P. M. Gehring, and A. P. Ramirez, "Neutron scattering study of antiferromagnetic order in $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ ", *Solid State Commun.* **121**, 625-629 (2002).
- 31) Y. J. Kim, J. P. Hill, C. A. Burns, S. Wakimoto, R. J. Birgeneau, T. Gog, and C. T. Venkataraman, "Resonant inelastic x-ray scattering study of charge excitations in La_2CuO_4 ", *Phys. Rev. Lett.* **89**, 177003 (2002).
- 32) F. Ronning, C. Kim, K. M. Shen, N. P. Armitage, A. Damascelli, D. H. Lu, D. L. Feng, Z.-X. Shen, L. L. Miller, Y.-J. Kim, F. Chou, I. Terasaki, "Universality of the electronic structure from a half-filled CuO_2 plane", *Phys. Rev. B* **67**, 035113 (2003).
- 33) S. Wakimoto, R. J. Birgeneau, N. Ichikawa, Y. J. Kim, K. M. Kojima, S.-H. Lee, J. M. Tranquada, S. Uchida, and M. v. Zimmermann, "Effect of a magnetic field on the spin- and charge-density wave order in $\text{La}_{1.45}\text{Nd}_{0.4}\text{Sr}_{0.15}\text{CuO}_4$ ", *Phys. Rev. B* **67**, 184419 (2003).
- 34) Y. J. Wang, Y. J. Kim, R. J. Christianson, S. C. Lamma, F. C. Chou, T. Masuda, I. Tsukada, K. Uchinokura, and R. J. Birgeneau, "X-ray Scattering and Magnetic Susceptibility Study of doped CuGeO_3 ", *J. Phys. Soc. Japan* **72**, 1544-1553 (2003).
- 35) S. Grenier, K. J. Thomas, Young-June Kim, J. P. Hill, Doon Gibbs, V. Kiryukhin, Y. Tokura, Y. Tomioka, D. Casa, T. Gog, C. Venkataraman, "Resonant X-ray Scattering as a probe of the valence and magnetic ground state and excitations in $\text{Pr}_{0.6}\text{Ca}_{0.4}\text{MnO}_3$ ", *Physica B*, **345**, 6 (2004).
- 36) Young-June Kim, J. P. Hill, F. C. Chou, D. Casa, T. Gog, and C. T. Venkataraman, "Charge and orbital excitations in Li_2CuO_2 ", *Phys. Rev. B* **69**, 155105 (2004).
- 37) Young-June Kim, J. P. Hill, H. Benthien, F. H. L. Essler, E. Jeckelmann, H. S. Choi, T. W. Noh, N. Motoyama, K. M. Kojima, S. Uchida, D. Casa, and T. Gog, "Resonant inelastic x-ray scattering study of holon-antiholon continuum in SrCuO_2 ", *Phys. Rev. Lett.* **92**, 137402 (2004).
- 38) K. J. Thomas, J. P. Hill, Y.-J. Kim, S. Grenier, P. Abbamonte, L. Venema, A. Rusydi, Y. Tomioka, Y. Tokura, D. F. McMorrow, and M. van Veenendaal, "Soft x-ray resonant diffraction study of magnetic and orbital correlations in a manganite near half-doping", *Phys. Rev. Lett.* **92**, 237204 (2004).
- 39) Young-June Kim, J. P. Hill, Seiki Komiya, Yoichi Ando, D. Casa, T. Gog, and C. T. Venkataraman, "Doping dependence of charge-transfer excitations in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ ", *Phys. Rev. B* **70**, 094524 (2004).
- 40) Y. Tanaka, A. Q. R. Baron, Young-June Kim, K. J. Thomas, J. P. Hill, Z. Honda, F. Iga, S. Tsutsui, and D. Ishikawa, "Search for orbiton in LaMnO_3 , YTiO_3 , and KCuF_3 using high resolution inelastic x-ray scattering", *New J. Phys.* **6**, 161-173 (2004).
- 41) Young-June Kim, J. P. Hill, G. Gu, F. C. Chou, S. Wakimoto, R. J. Birgeneau, Seiki Komiya, Yoichi Ando, N. Motoyama, K. M. Kojima, S. Uchida, D. Casa, T. Gog, and C. T. Venkataraman, "Molecular orbital excitations in cuprates: resonant inelastic x-ray scattering studies", *Phys. Rev. B* **70**, 205128 (2004).
- 42) S. Grenier, J. P. Hill, V. Kiryukhin, W. Ku, Y.-J. Kim, K. J. Thomas, S.-W. Cheong, Y. Tokura, Y. Tomioka, D. Casa, and T. Gog, "d-d Excitations in Manganites Probed by Resonant Inelastic X-Ray Scattering", *Phys. Rev. Lett.* **94**, 047203 (2005).
- 43) M. Hücker, Young-June Kim, G. D. Gu, B. D. Gaulin, J. W. Lynn, J. M. Tranquada, "Neutron scattering study

- on $\text{La}_{1.9}\text{Ca}_{1.1}\text{Cu}_2\text{O}_{6+\delta}$ and $\text{La}_{1.85}\text{Sr}_{0.15}\text{CaCu}_2\text{O}_{6+\delta}$ ", *Phys. Rev. B* **71**, 094510 (2005).
- 44) L. Lu, X. Zhao, G. Chabot-Couture, N. Kaneko, O. P. Vajk, G. Yu, S. Grenier, Y. J. Kim, D. Casa, T. Gog, and M. Greven, "Charge-Transfer Excitations in the Model Superconductor $\text{HgBa}_2\text{CuO}_{4+\delta}$ ", "Charge-Transfer Excitations in the Model Superconductor $\text{HgBa}_2\text{CuO}_{4+\delta}$ ", *Phys. Rev. Lett.* **95**, 217003 (2005).
 - 45) S. Wakimoto, Young-June Kim, Hyunkyung Kim, H. Zhang, T. Gog, and R. J. Birgeneau, "Resonant inelastic X-ray Scattering on overdoped $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ ", *Phys. Rev. B* **72**, 224508 (2005).
 - 46) G. D. Gu, M. Hücker, Y.-J. Kim, J. M. Tranquada, Q. Li, and A. R. Moodenbaugh, "Single-crystal growth and superconductivity of $(\text{La}_{1-x}\text{Ca}_x)_2\text{CaCu}_2\text{O}_{6+y}$ mat", *J. Cryst. Growth*, **287**, 318 (2006).
 - 47) G. D. Gu, M. Hücker, Y.-J. Kim, J. M. Tranquada, H. Dabkowska, G. M Luke, T. Timusk, B. D. Gaulin, Q. Li, and A. R. Moodenbaugh, "Crystal growth and superconductivity of $(\text{La}_{1-x}\text{Ca}_x)_2\text{CaCu}_2\text{O}_{6+y}$ materials", *J. Phys. Chem. Solids* **67**, 431 (2006).
 - 48) S.-H. Lee, G. Gasparovic, C. Broholm, M. Matsuda, J.-H. Chung, Y. J. Kim, H. Ueda, G. Xu, P. Zschack, K. Kakurai, H. Takagi, W. Ratcliff, T. H. Kim and S.-W. Cheong, "Crystal distortions in geometrically frustrated ACr_2O_4 ($A = \text{Zn}, \text{Cd}$)", *J. Phys. Condens. Matter* **19**, 145259 (2007).
 - 49) J. P. Hill, D. S. Coburn, Y.-J. Kim, T. Gog, N. Kodituwakku, and H. Sinn, "A new 2m Inelastic X-ray Scattering Spectrometer at CMC-CAT, Advanced Photon Source", *J. Synch. Rad.* **14**, 361 (2007).
 - 50) Z. Yamani, W. J. L. Buyers, F. Wang, Y.-J. Kim, C. Stock, J.-H. Chung, C. L. Broholm, R. Liang, D. Bonn, and W. N. Hardy, "Antiferromagnetic correlations near the lower edge of superconducting dome in YBCO_{6+x} ", *Physica C* **460-462**, 430 (2007).
 - 51) Young-June Kim, J. P. Hill, S. Wakimoto, R. J. Birgeneau, F. C. Chou, N. Motoyama, K. M. Kojima, S. Uchida, D. Casa, and T. Gog, "Observations on the resonant inelastic x-ray scattering cross-section in copper oxide compounds", *Phys. Rev. B* **76**, 155116 (2007).
 - 52) D. S. Ellis, J. P. Hill, S. Wakimoto, R. J. Birgeneau, D. Casa, T. Gog, and Young-June Kim, "Charge-transfer exciton in La_2CuO_4 probed with resonant inelastic x-ray scattering", *Phys. Rev. B* **77**, 060501(R) (2008).
 - 53) D. S. Ellis, J. P. Hill, G. D. Gu, T. Gog, D. Casa, R. J. Birgeneau, S. Wakimoto, and Young-June Kim, "Comparison of electronic excitations in single-layer and bi-layer cuprates", *Physica B*, **403**, 1053 (2008).
 - 54) Young-June Kim, G. D. Gu, T. Gog, and D. Casa, "Properties of charge density waves in $\text{La}_{2-x}\text{Ba}_x\text{CuO}_4$ ", *Phys. Rev. B* **77**, 064520 (2008).
 - 55) A. Ruydy, P. Abbamonte, H. Eisaki, Y. Fujimaki, S. Smadici, N. Motoyama, S. Uchida, Y.-J. Kim, M. Ruebhausen, and G. A. Sawatzky, "Strain amplification of the 4kF chain charge instability in $\text{Sr}_{14}\text{Cu}_{24}\text{O}_{41}$ ", *Phys. Rev. Lett.* **100**, 036403 (2008).
 - 56) J. P. Hill, G. Blumberg, Young-June Kim, D. Ellis, S. Wakimoto, R. J. Birgeneau, Seiki Komiya, Yoichi Ando, B. Liang, R. L. Greene, D. Casa, and T. Gog, "Observation of a 500meV Collective Mode in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ and Nd_2CuO_4 ", *Phys. Rev. Lett.* **100**, 097001 (2008).
 - 57) Jungho Kim, A. Kagedan, G. D. Gu, C.S. Nelson, and Young-June Kim, "Magnetic field dependence of charge stripe order in $\text{La}_{2-x}\text{Ba}_x\text{CuO}_4$ ($x \sim 1/8$)", *Phys. Rev. B* **77**, 180514(R) (2008).
 - 58) Jungho Kim, J. Kunes, Young-June Kim, B. K. Cho, and E. J. Choi, "Optical spectroscopy and electronic band structure of ferromagnetic EuB_6 ", *Phys. Rev. B* **78**, 165120 (2008).
 - 59) Jungho Kim, H. Zhang, G. D. Gu, and Young-June Kim, "Charge stripes and superconductivity in $\text{La}_{2-x}\text{Ba}_x\text{CuO}_4$ and $\text{La}_{1.6-x}\text{Nd}_{0.4}\text{Sr}_x\text{CuO}_4$ ", *Journal of Supercond. Nov. Magn.* **22**, 251 (2009).
 - 60) Jungho Kim, D. S. Ellis, H. Zhang, T. Gog, D. Casa, F. C. Chou, J. P. Hill, and Young-June Kim, "Comparison of resonant inelastic x-ray scattering spectra and dielectric loss functions in insulating copper oxides", *Phys. Rev. B* **79**, 094525 (2009).
 - 61) F. Wang, Jungho Kim, G. D. Gu, and Young-June Kim, "Spin glass behavior in $\text{LuFe}_2\text{O}_{4+\delta}$ ", *Phys. Rev. B* **80**, 024419 (2009).
 - 62) D. C. Peets, D. G. Hawthorn, K. M. Shen, Young-June Kim, D. S. Ellis, H. Zhang, Seiki Komiya, Yoichi Ando, G. A. Sawatzky, Ruixing Liang, D. A. Bonn, and W. N. Hardy, "X-Ray Absorption Spectra Reveal the Inapplicability of the Single-Band Hubbard Model to Overdoped Cuprate Superconductors", *Phys. Rev. Lett.* **103**, 087402 (2009).
 - 63) T. Gog, G. T. Seidler, D. M. Casa, M. H. Upton, Jungho Kim, Yu. Shvyd'ko, S. Stoupin, K. P. Nagle, M. Balasubramanian, R. A. Gordon, T. T. Fister, S. M. Heald, T. Toellner, J. P. Hill, D. S. Coburn, Young-June Kim, A. H. Said, E. E. Alp, W. Sturhahn, H. Yavas, C. A. Burns, and H. Sinn, "Momentum-resolved Resonant and Nonresonant Inelastic X-ray Scattering at the Advanced Photon Source", *Synch. Rad. News* **22**, 12 (2009).
 - 64) D. S. Ellis, Jungho Kim, J. P. Hill, S. Wakimoto, R. J. Birgeneau, Y. Shvyd'ko, D. Casa, T. Gog, K. Ishii, K. Ikeuchi, A. Paramekanti, and Young-June Kim, "Magnetic nature of the 500 meV peak in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ observed with resonant inelastic x-ray scattering", *Phys. Rev. B* **81**, 085124 (2010).

- 65) Jungho Kim, D. S. Ellis, T. Gog, D. Casa, and Young-June Kim, “Orbital excitation in $\text{Sr}_2\text{CuO}_2\text{Cl}_2$: resonant inelastic x-ray scattering at the Cu-K pre-edge”, *Phys. Rev. B* 81, 073109 (2010).
- 66) Young-June Kim, J. P. Hill, H. Yamaguchi, T. Gog, and D. Casa, “Resonant inelastic x-ray scattering study of the electronic structure of Cu_2O ”, *Phys. Rev. B* 81, 195202 (2010).
- 67) D. S. Ellis, Jungho Kim, Harry Zhang, J. P. Hill, Genda Gu, S. Komiyama, Y. Ando, D. Casa, T. Gog, and Young-June Kim, “Electronic Structure of Doped Lanthanum Cuprates Studied with Resonant Inelastic X-Ray Scattering”, *Phys. Rev. B* 83, 075120 (2011).
- 68) A. J. Achkar, T. Z. Regier, H. Wadati, Y.-J. Kim, and D.G. Hawthorn “Bulk Sensitive X-Ray Absorption Spectroscopy Free of Self-Absorption Effects”, *Phys. Rev. B* 83, 081106(R) (2011).
- 69) R. Ganesh, D. N. Sheng, Young-June Kim, and A. Paramakanti, “Quantum paramagnetic ground states on the honeycomb lattice and field-induced transition to Neel order”, *Phys. Rev. B*, 83, 144414 (2011).
- 70) X. Liu, T. Berlijn, W.-G. Yin, W. Ku, A. Tsvelik, Young-June Kim, H. Gretarsson, Yogesh Singh, P. Gegenwart, and J. P. Hill, “Long-range magnetic ordering in Na_2IrO_3 ”, *Phys. Rev. B* 83, 220403(R) (2011).
- 71) Young-June Kim, A. P. Sorini, C. Stock, T. G. Perring, J. van den Brink, and T. P. Devereaux, “Probing electronic excitations using inelastic neutron scattering”, *Phys. Rev. B* 84, 085132 (2011).
- 72) Wentao Jin, H. Gretarsson, M. Fujita, C. Y. Kim, Han Zhang, and Young-June Kim, “X-ray Scattering Study of the Structural Phase Transition in $\text{La}_{2-x}\text{Sr}_x\text{Cu}_{2.99}\text{Fe}_{0.01}\text{O}_4$ ($x=0.20$)”, *J. Phys.: Condens. Matter* 23, 365701 (2011).
- 73) H. Gretarsson, A. Lupascu, Jungho Kim, D. Casa, T. Gog, W. Wu, S. R. Julian, Z. J. Xu, J. S. Wen, G. D. Gu, R. H. Yuan, Z. G. Chen, N.-L. Wang, S. Khim, K. H. Kim, M. Ishikado, I. Jarrige, S. Shamoto, J.-H. Chu, I. R. Fisher, and Young-June Kim, “Revealing the dual nature of magnetism in iron pnictides and iron chalcogenides using x-ray emission spectroscopy”, *Phys. Rev. B* 84, 100509(R) (2011).
- 74) S. H. Chang, Y. J. Chang, S. Y. Jang, D. W. Jeong, C. U. Jung, J.-S. Chung, Y.-J. Kim, and T. W. Noh, “Thickness-controlled structural phase transition of ultrathin SrRuO_3 films”, *Phys. Rev. B* 84, 104101 (2011).
- 75) D. W. Jeong, Woo Seok Choi, T. D. Kang, C. H. Sohn, A. David, H. Rotella, A. A. Sirenko, Cheol Hyeok Lee, Jae H. Kim, U. Lüders, W. Prellier, Y.-J. Kim, Yun Sang Lee and T. W. Noh, “Optical spectroscopy of the carrier dynamics in $\text{LaVO}_3/\text{SrVO}_3$ superlattices”, *Phys. Rev. B* 84, 115132 (2011).
- 76) H. Gretarsson, J. H. Kim, D. Casa, T. Gog, S. W. Cheong, and Young-June Kim, “X-ray induced electronic structure change in CuIr_2S_4 ”, *Phys. Rev. B* 84, 125135 (2011).
- 77) Jungho Kim, D. Casa, M. H. Upton, T. Gog, Young-June Kim, J. F. Mitchell, M. van Veenendaal, M. Daghofer, J. van den Brink, G. Khaliullin, and B. J. Kim, “Magnetic Excitation Spectra of Sr_2IrO_4 Probed by Resonant Inelastic X-Ray Scattering: Establishing Links to Cuprate Superconductors”, *Phys. Rev. Lett.* 108, 177003 (2012).
- 78) Young-June Kim, J. P. Hill, Jungho Kim, and Diego Casa, “Hard X-ray Resonant Inelastic X-ray Scattering at the Advanced Photon Source”, *Synchrotron Rad. News* 25(4), 3 (2012).
- 79) I. Jarrige, T. Nomura, K. Ishii, H. Gretarsson, Y.-J. Kim, J. Kim, M. Upton, D. Casa, T. Gog, M. Ishikado, T. Fukuda, M. Yoshida, J.P. Hill, X. Liu, N. Hiraoka, K.D. Tsuei, and S. Shamoto, “Resonant inelastic x-ray scattering study of charge excitations in superconducting and nonsuperconducting PrFeAsO_{1-y} ”, *Phys. Rev. B* 86, 115104 (2012).
- 80) J.P. Clancy, N. Chen, C.Y. Kim, W.F. Chen, K.W. Plumb, B.C. Jeon, T.W. Noh, and Young-June Kim, “Spin-Orbit Coupling in Iridium-Based 5d Compounds Probed by X-ray Absorption Spectroscopy”, *Phys. Rev. B*, 86, 195132 (2012).
- 81) Andreea Lupascu, Luke J. Sandilands, Zixin Nie, Viktoriya Baydina, Renfei Feng, Genda Gu, Shimpei Ono, Yoichi Ando, D. Kwok, N. Lee, S.-W. Cheong, Kenneth S. Burch, and Young-June Kim, “Novel approach to structural studies of exfoliated nanocrystals: synchrotron x-ray characterization of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+d}$ ”, *Appl. Phys. Lett.*, 101, 223106 (2012).
- 82) A. J. Achkar, F. He, R. Sutarto, J. Geck, H. Zhang, Y.-J. Kim, and D. G. Hawthorn, “Resonant x-ray scattering measurements of a spatial modulation of the Cu 3d and O 2p energies in stripe-ordered cuprates”, *Phys. Rev. Lett.*, 110, 017001 (2013).
- 83) H. Gretarsson, S.R. Saha, T. Drye, J. Paglione, Jungho Kim, D. Casa, T. Gog, W. Wu, S. R. Julian, and Young-June Kim, “Spin-state transition in the Fe-pnictides”, *Phys. Rev. Lett.*, 110, 047003 (2013).
- 84) Fan Wang, Jungho Kim, G. D. Gu, Yongjae Lee, Saebok Bae, and Young-June Kim, “Oxygen stoichiometry and magnetic properties of $\text{LuFe}_2\text{O}_{4+d}$ ”, *J. Appl. Phys.*, 113, 063909 (2013).
- 85) H. Gretarsson, J. P. Clancy, X. Liu, J. P. Hill, Emil Bozin, Yogesh Singh, S. Manni, P. Gegenwart, Jungho Kim, A. H. Said, D. Casa, T. Gog, M. H. Upton, Heung-Sik Kim, J. Yu, Vamshi M. Katukuri, L. Hozoi, Jeroen van den Brink, and Young-June Kim, “Crystal field splitting and correlation effect on the electronic structure of

- A2IrO3”, *Phys. Rev. Lett.* 110, 076402 (2013).
- 86) Jungho Kim, W. Ku, Chi-Cheng Lee, D. S. Ellis, B. K. Cho, C. C. Homes, E. J. Choi, A. Said, Y. Shvyd'ko, and Young-June Kim, “Spin-Split Conduction band in EuB6 and Tuning of Half-Metallicity with External Stimuli”, *Phys. Rev. B* 87, 155104 (2013).
 - 87) K. W. Plumb, A. M. Cook, J. P. Clancy, A. I. Kolesnikov, B. C. Jeon, T. W. Noh, A. Paramakanti, and Young-June Kim, “Spin-orbital locked magnetic excitations in a half-metallic double perovskite Ba2FeReO6”, *Phys. Rev. B* 87, 184412 (2013).
 - 88) Xingye Lu, H. Gretarsson, Rui Zhang, Xuerong Liu, Huiqian Luo, Wei Tian, Mark Laver, Z. Yamani, Young-June Kim, A. H. Nevidomskyy, Qimiao Si, and Pengcheng Dai, “Avoided quantum criticality and magnetoelastic coupling in BaFe2-xNixAs2”, *Phys. Rev. Lett.* 110, 257001 (2013).
 - 89) H. Gretarsson, J. P. Clancy, Yogesh Singh, P. Gegenwart, Jungho Kim, M. H. Upton, A. H. Said, D. Casa, T. Gog, and Young-June Kim, “Magnetic excitation spectrum of Na2IrO3 probed by RIXS”, *Phys. Rev. B* 87, 220407(R) (2013).
 - 90) K.W. Plumb, Zahra Yamani, M. Matsuda, G. J. Shu, B. Koteswararao, F.C. Chou, and Young-June Kim, “Incommensurate dynamic correlations in the quasi-two-dimensional spin liquid BiCu2PO6”, *Phys. Rev. B* 88, 024402 (2013).
 - 91) J. P. Clancy, A. Lupascu, H. Gretarsson, Z. Islam, Y. F. Hu, D. Casa, C. S. Nelson, S. C. LaMarra, G. Cao, and Young-June Kim, “Dilute magnetism and spin-orbital percolation effects in Sr2Ir1-xRhxO4”, *Phys. Rev. B* 89, 054409.
 - 92) L. Hozoi, H. Gretarsson, J. P. Clancy, B.-G. Jeon, B. Lee, K. H. Kim, V. Yushankhai, Peter Fulde, D. Casa, T. Gog, Jungho Kim, A. H. Said, M. H. Upton, Young-June Kim, and Jeroen van den Brink, “Longer-range lattice anisotropy strongly competing with spin-orbit interactions in pyrochlore iridates,” *Phys. Rev. B* 89, 115111 (2014).
 - 93) A. Lupascu, J. P. Clancy, H. Gretarsson, Zixin Nie, J. Nichols, J. Terzic, G. Cao, S. S. A. Seo, Z. Islam, M. H. Upton, Jungho Kim, A. H. Said, D. Casa, T. Gog, Vamshi M. Katukuri, L. Hozoi, H. Stoll, J. van den Brink, and Young-June Kim, “Tuning Magnetic Coupling in Sr2IrO4 Thin Films with Epitaxial Strain”, *Phys. Rev. Lett.* 112, 147201 (2014).
 - 94) F. F. Tafti, J. P. Clancy, M. Lapointe-Major, C. Collignon, S. Faucher, J. Sears, A. Juneau-Fecteau, N. Doiron-Leyraud, A. F. Wang, X. G. Luo, S. Desgreniers, Young-June Kim, X. H. Chen, and Louis Taillefer, “Sudden reversal in the pressure dependence of Tc in the iron-based superconductor CsFe2As2: A possible link between scattering and pairing symmetry”, *Phys. Rev. B* 89 134502 (2014).
 - 95) K. W. Plumb, A. T. Savici, G. E. Granroth, F. C. Chou, and Young-June Kim, "High-Energy Continuum of Magnetic Excitations in the Two-Dimensional Quantum Antiferromagnet Sr2CuO2Cl2", *Phys. Rev. B* 89, 180410(R) (2014).
 - 96) K. W. Plumb, J. P. Clancy, L. Sandilands, V. Vijay Shankar, Y.F. Hu, K. S. Burch, Hae-Young Kee, and Young-June Kim, “alpha-RuCl3: a Spin-Orbit Assisted Mott Insulator on a Honeycomb Lattice”, *Phys. Rev. B* 90, 041112(R) (2014).
 - 97) L. Ortenzi, H. Gretarsson, S. Kasahara, Y. Matsuda, T. Shibauchi, K. D. Finkelstein, W. Wu, S. R. Julian, Young-June Kim, I. I. Mazin, and L. Boeri, “Structural origin of the anomalous temperature dependence of the local magnetic moments in the CaFe2As2 family of materials”, *Phys. Rev. Lett.* 114, 047001 (2015). [5 pages]
 - 98) L.J. Sandilands, Y. Tian, K.W. Plumb, Young-June Kim, and K. S. Burch, “Scattering Continuum and Possible Fractionalized Excitations in alpha-RuCl3: *Phys. Rev. Lett.* 114, 147201 (2015). [5 pages]
 - 99) J. A. Sears, M. Songvilay, K. W. Plumb, J. P. Clancy, Y. Qiu, Y. Zhao, D. Parshall, and Young-June Kim, “Magnetic order in alpha-RuCl3: a honeycomb lattice quantum magnet with strong spin-orbit coupling”, *Phys. Rev. B*, 91, 144420 (2015). [5 pages]
 - 100) Zahra Yamani, W. J. L. Buyers, F. Wang, Y-J. Kim, J.-H. Chung, S. Chang, P. Gehring, G. Gasparovic, C. Stock, C. L. Broholm, J. C. Baglo, Ruixing Liang, D. A. Bonn, and W. N. Hardy, “Separation of magnetic and superconducting behaviour in YBCO6.33 (Tc=8.4 K)”, *Phys. Rev. B*, 91, 134427 (2015). [19 pages]
 - 101) H. Gretarsson, T. Nomura, I. Jarrige, A. Lupascu, M. H. Upton, Jungho Kim, D. Casa, T. Gog, R. H. Yuan, Z. G. Chen, N.-L. Wang, and Young-June Kim, “Resonant inelastic x-ray scattering study of electronic excitations in insulating K0.83Fe1.53Se2”, *Phys. Rev. B*, 91, 245118 (2015).
 - 102) K.W. Plumb, Kyusung Hwang, Y. Qiu, Leland W. Harriger, G. E. Granroth, G. J. Shu, F.C. Chou, Ch. Ruegg, Yong Baek Kim, and Young-June Kim, “Quasiparticle-continuum level repulsion in a quantum magnet”, arXiv:1408.2528, to appear in *Nat. Phys.*
 - 103) Anjan A. Reijnders, L.J. Sandilands, G. Pohl, K. W. Plumb, Young-June Kim, S. Jia, M.E. Charles, R.J. Cava, and K. S. Burch, “Fourier analysis of the IR response of van der Waals materials”, arXiv:1407.6713.

- 104) Luke J. Sandilands, Yao Tian, Anjan A. Reijnders, Heung-Sik Kim, K.W. Plumb, Hae-Young Kee, Young-June Kim, Kenneth S. Burch, "Orbital excitations in the 4d spin-orbit coupled Mott insulator \square -RuCl₃", arXiv:1503.07593.