

Kevin Storr, Ph.D.
Assoc. Professor of Physics
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Education

- **Florida State University**, Tallahassee FL
Ph.D. August, 2001 (Department of Physics, National High Magnetic Field Laboratory)
- **Florida State University**, Tallahassee FL
M.S. May, 2000 (Department of Physics, National High Magnetic Field Laboratory)
- **Prairie View A&M University**, Prairie View TX
B.S. August 1996 (Department of Physics)
- **Prairie View A&M University**, Prairie View TX
B.S. August 1996 (Department of Computer Science)

**Research
Interests**

- Studies of the rich states of the Heavy Fermion conductor CeCoIn₅
- Characterization of the electronic and magnetic properties of single crystal, anisotropic, organic conductors based upon magnetic field orientation, temperature and pressure.
- Fermiology Studies

Positions

- **Assoc. Professor of Physics**, Prairie View A&M University
Prairie View Texas, August 2010 – Present
- **Asst. Professor of Physics**, Prairie View A&M University
Prairie View Texas, July 2004 – August 2010
- **Visiting Research Scientist**, National High Magnetic Field Lab
Tallahassee Florida, June 2005 - Present
- **Postdoctoral Associate**, National High Magnetic Field Laboratory,
Tallahassee Florida, August 2001 – July 2004
- **Visiting Professor of Physics**, Florida A&M University
Tallahassee Florida, August 2002 – July 2004
- **Adjunct Professor of Physics**, Tallahassee Community College,
Tallahassee Florida, August 2003 – May 2004
- **Adjunct Professor of Physics**, Florida A&M University
Tallahassee Florida, August 2001 – August 2002
- **Research Associate**, Florida State University, National High
Magnetic Field Laboratory, Tallahassee FL., Jan. 2000 – Aug. 2001
- **Research Associate**, Florida State University, Department of
Physics, Tallahassee Florida, May 1997 – December 1999
- **Graduate Teaching Assistant**, Florida State University,
Department of Physics, Tallahassee Florida, May 1997 – Dec. 1999
- **Summer Research Program**, Princeton Plasma Physics
Laboratory, Princeton New Jersey, Summer 1994 & 1995

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Funding

- National Science Foundation (MRI) Supplemental, **June 2010–Dec. 2010 \$25,000.00**
- National Science Foundation (MRI), **Aug. 2006–Dec. 2009 \$321,173.00**
- National Science Foundation (IGERT), **February 2006 - Present, \$100,000.00**
- **Department of Energy (NNSA) September 2005 – Dec. 2008 \$1,500,000.00**; Research on the Actinides and Related Materials

Activities

- **Faculty Senator Prairie View A&M University**, September 2008 - Present
- **Advisor Graduate Students**, Fall 05 - Present
- **Chairman of Recruitment and Retention, Department of Physics, Prairie View A&M University**, July 2008 - Present
- **Chairman of Curriculum and Instruction, Department of Physics, Prairie View A&M University**, August 2004 – July 2008
- **Advisor, Gamma Phi Delta Fraternity**, Beta Exodus Chapter Prairie View A&M University, Fall 2004 - Present
- **Trainer, Department of Family and Children’s Services**, State of Florida
- **Trainer, Florida Pharmacy Association**, State of Florida
- **Summer Mentor, Research Experience for Undergraduates Program**, 2003
- **National High Magnetic Field Laboratory Science Education Affiliate**; Science Presentations in schools throughout the district and tour direction in the lab.
- **Director of Youth and Education** Organized community events and instructional programs for age groups ranging from adolescence to adults. Put together study lessons; perform training & development seminars. Mediation and advising. Work with the Juvenile Center of Tallahassee (troubled teenagers) and Springhill Road Rehabilitation Center
- **Author/Publisher**, Involvement in publishing of books and lesson creation. Writing books and consulting with prospective authors on how to self publish and prepare manuscripts for printing.

Collaborators

Dr. James Brooks, National High Magnetic Field Lab
Dr. Luis Balicas, National High Magnetic Field Lab
Dr. Pulickel Ajayan, Rice University
Dr. Donna Stokes, University of Houston
Dr. Stan Tozer, National High Magnetic Field Lab
Dr. Antoine Carty, Prairie View A&M University
Dr. Orion Ciftja, Prairie View A&M University
Dr. Cedomir Petrovic, Brookhaven Labs
Dr. Joe Ross, Texas A&M University
Dr. Eric Palm, National High Magnetic Field Lab

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Publications & Scientific Activities

- Lijie Ci, Li Song, Chuanhong Jin, Deep Jariwala, Dangxin Wu, Yongjie Li, Anchal Srivastava, **Kevin Storr**, Luis Balicas, Feng Liu, Pulickel M. Ajayan, *Atomic layers of hybridized boron nitride and graphene domains*. **Nature Materials**, 2010; DOI: 10.1038/nmat2711.
- Jo, Y.J.; Balicas, L.; Kikugawa, N.; Choi, E.S.; Storr, K.; Zhou, M. and Mao, Z.Q., *Orbital-dependent metamagnetic response in $Sr_4Ru_3O_{10}$* , **Phys. Rev. B**, **75**, 094413 (2007)
- Balicas, L.; Analytis, J.G.; Jo, Y.J.; Storr, K.; Zandbergen, H.; Xin, Y.; Hussey, N.E.; Chou, F.C. and Lee, P.A., *Shubnikov–de Haas Effect in the Metallic State of $Na_{0.3}CoO_2$* , **Phys. Rev. Lett.**, **97**, 126401 (2006)
- Brooks, J.S.; Williams, V.; Choi, E.; Graf, D.; Tokumoto, M.; Uji, S.; Zuo, F.; Wosnitza, J.; Schlueter, J. A.; Davis, H.; Winter, R.W.; Gard, G.L. and Storr, K., *Fermiology and superconductivity at high magnetic fields in a completely organic cation radical salt*, **New Journal of Physics**, **8**, 25 (2006)
- Jo, Y.J.; Balicas, L.; Kikugawa, N.; Storr, K.; Zhou M. and Mao, Z.Q., *Shubnikov-de Haas effect across a metamagnetic transition in high quality single crystals of $Sr_4Ru_3O_{10}$* , **J. Physics: Conference Series**, **51**, 247 (2006)
- Balicas, L.; Barzykin, V.; Storr, K.; Brooks, J.S.; Tokumoto, M.; Uji, S.; Tanaka, H.; Kobayashi, H. and Kobayashi, A., *Pressure-induced enhancement of the transition temperature of the magnetic-field induced superconducting state in λ -(BETS) $_2$ FeCl $_4$* , **Phys. Rev. B**, **70** (9), 092508 (2004)
- Balicas, L.; Barzykin, V.; Storr, K.; Brooks, J.S.; Tokumoto, M.; Uji, S.; Tanaka, H.; Kobayashi, H. and Kobayashi, A., *The effect of pressure on the phase diagram of the magnetic field-induced superconducting state of λ -(BETS) $_2$ FeCl $_4$* , *Journal de Physique IV*, **114**, 199 (2004)
- Brooks, J.S.; Balicas, L.; **Storr, K.**; Kobayashi, H.; Tanaka, H.; Kobayashi, A.; Uji, S. and Tokumoto, M., *Novel features of the newly discovered field-induced superconducting phase of λ -(BETS) $_2$ FeCl $_4$* , *Synthetic Met.*, **1-4**, 485 (2003)
- Brooks, J.S.; Graf, D.; Choi, E.S.; Balicas, L.; **Storr, K.**; Mielke, C.H. and Papavassiliou, G.C., *High-magnetic-field-induced insulating phase in an organic conductor*, *Phys. Rev. B*, **67**, 153404 (2003)
- Iwashita, K.; Yamamoto, H.M.; Yoshino, H.; Graf, D.; **Storr, K.**; Rutel, I.; Brooks, J.S.; Takahashi, T. and Murata, K., *Uniaxial strain dependence of electronic states of θ -(BEDT-TTF) $_2$ MZn(SCN) $_4$ [$M = Cs, Rb$]*, *Synthetic Met.*, **133**, 153-155 (2003)
- Murata, K.; Iwashita, K.; Mizuno, Y.; Guo, F.Z.; Shodai, S.; Yoshino, H.; Brooks, J.S.; Balicas, L.; Graf, D.; **Storr, K.**; Rutel, I.; Uji, S.; Terakura, C. and Yamanaka, Y., *Spin-density wave under uniaxial strain in (TMTSF) $_2$ PF $_6$* , *Synthetic Met.*, **1-4**, 51 (2003)

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- Balicas, L.; Brooks, J.S.; **Storr, K.**; Uji, S.; Tokumoto, M.; Tanaka, H.; Kobayashi, H.; Kobayashi, A.; Barzykin, V. and Gor'kov, L.P., *High Field Phase Diagram of the Field-Induced Superconducting State of λ -(BETS) $_2$ FeCl $_4$* , Int. J. Mod. Phys. B, **16** (20-22), 3101 (2002)
- Brooks, J.S.; Balicas, L.; **Storr, K.**; Ward, B.H.; Uji, S.; Terashima, T.; Terakura, C.; Schlueter, J.A.; Winter, R.W.; Motasham, J.; Gard, G.L.; Papavassiliou, G.C. and Tokumoto, M., *Electronic Structure of Novel Cation-Radical Salts in High Magnetic Fields*, Mol. Cryst. Liq. Cryst., **380**, 109 (2002)
- Murata, K.; Iwashita, K.; Mizuno, Y.; Guo, F.Z.; Shodai, S.; Yoshino, H.; Brooks, J.S.; Balicas, L.; Graf, D.; **Storr, K.**; Rutel, I.; Uji, S.; Terakura, C. and Imanaka, Y., *Uniaxial strain and anisotropy in the spin density wave in(TMTSF) $_2$ PF $_6$* , J. Physics and Chemistry of Solids, **63** (6-8), 1263-1265 (2002)
- Balicas, L.; Brooks, J.S.; **Storr, K.**; Uji, S.; Tokumoto, M.; Tanaka, H.; Kobayashi, H.; Kobayashi, A.; Barzykin, V. and Gor'kov, L.P., *Superconductivity in an organic insulator at very high magnetic fields*, Phys. Rev. Lett., **87** (6), 067002 (2001)
- **Storr, K.**; Balicas, L.; Brooks, J.S. and Papavassiliou, G., *Magnetic-Field-Dependent Interplay Between Incoherent and Fermi Liquid Transport Mechanisms in Low-Dimensional t-Phase Organic Conductors*, Phys. Rev. B, **64**, 045107 (2001)
- Balicas, L.; Brooks, J.S.; **Storr, K.**; Graf, D.; Uji, S.; Shinagawa, H.; Ojima, E.; Fujiwara, H.; Kobayashi, H.; Kobayashi, A. and Tokumoto, M., *Shubnikov-de Haas effect and Yamaji oscillations in the antiferromagnetically ordered organic superconductor k -(BETS) $_2$ FeBr $_4$: a fermiology study*, Solid State Commun., **116**, 557-562 (2000)
- Ng, H.K.; Leem, Y.A. and **Storr, K.**, *Oscillatory Cyclotron Resonance Effective Mass Near $v = 1$ and 2 in Modulation-Doped ZnSe/Zn $_{1-x}$ -yCd $_x$ MnySe*, J. Appl. Phys., **87** (9), 6466 (2000)

Internet Disseminations

- Y. J. Jo, L. Balicas, N. Kikugawa, K. Storr, M. Zhou, Z. Q. Mao, *Evolution of the Fermi surface across the metamagnetic transition in Sr $_4$ Ru $_3$ O $_{10}$* , **cond-mat/0605504** (2006)
- Brooks, J.S.; Balicas, L.; Storr, K.; Ward, B.H.; Uji, S.; Terashima, T.; Terakura, C.; Schlueter, J.A.; Winter, R.W.; Mohtasham, J.; Gard, G.L.; Papavassiliou, G.C. and Tokumoto, M., *Electronic Structure of Novel Cation Radical Salts in High Magnetic Fields. Proceedings of Pac. Chem. Conference (in press).*, <http://arXiv.org/abs/cond-mat/0012291>, (2001)

Presentations, Posters & Abstracts

- **Storr, K.**, *Mathematical Tools for Elucidating Fermiological Topologies*, Department of Mathematics, Prairie View A&M University, Prairie View Texas, November (2009)

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- **Storr, K**, *PV-Physics of Magnetic Fields and Low Temperatures*, Department of Physics Prairie View A&M University, Prairie View Texas, October (2008)
- Jo, Y.J.; Balicas, L.; Kikugawa, N.; Choi, E.S.; **Storr, K.**; Zhou, M. and Mao, Z.Q., *Orbital-dependent Metamagnetic Response in $Sr_4Ru_3O_{10}$* , Orbital Physics Conf. 2007, Stuttgart, Germany, October 10-12 (2007)
- Jo, Y.J.; Balicas, L.; Kikugawa, N.; Choi, E.S.; **Storr, K.**; Zhou, M. and Mao, Z.Q., *Orbital-dependent metamagnetic response in $Sr_4Ru_3O_{10}$* , Int. Conf. on Strongly Correlated Electron Systems 2007, Houston, TX, May 13-18 (2007)
- **Storr, K**, Brooks, J, Balicas, L, Graf, D, **Invited Speaker**, *Electronic and Magnetic Properties of Low-Dimensional Organic Conductors*, North Carolina A&T University, Greensboro, NC November (2006)
- **Storr, K**, Balicas, L.; and Brooks, J.S., et al., **Invited Speaker**, *Field-Induced Superconductivity in an Organic Insulator*, Rice University, Houston Tx. October (2006)
- Jo, Y.J.; Balicas, L.; Kikugawa, N.; **Storr, K.**; Mackenzie, A.P. and Mao, Z., *Shubnikov de Haas Oscillations across the Metamagnetic Transition in $Sr_4Ru_3O_{10}$* , American Physical Society March Meeting, Baltimore, MD, March 13-17 (2006)
- *M. Golam Faruk, Orion Ciftja, Kevin Storr*, A Variational Wave Function for two-dimensional quantum-dot helium, APS March Meeting, Baltimore, March 13-17 (2006)
- Jo, Y.J.; Balicas, L.; Kikugawa, N.; Storr, K.; Mackenzie, A.P. and Mao, Z., *Shubnikov de Haas Oscillations across the Metamagnetic transition in $Sr_4Ru_3O_{10}$* , APS March Meeting, Baltimore, March 13-17 (2006)
- **Storr, K**, Balicas, L, Brooks J, **Invited Speaker Session Organizer**, *Electrical Transport in Layered Anisotropic Single Crystals using High Magnetic Fields and Low Temperatures* National Conference of Black Physicists, San Jose Ca, February (2006)
- **Storr, K, Invited Speaker**, National High Magnetic Field Laboratory NSF Site Visit, *College Outreach Program*, Tallahassee Florida (2005)
- **Storr, K**, Balicas, L.; and Brooks, J.S., et al., **Invited Speaker**, Superconductivity in an Organic Insulator at Very High Magnetic Fields, Texas A&M University, College Station Tx. October (2004)
- **Storr, K**, Balicas, L.; and Brooks, J.S., et al., *Magnetic-field Studies of Anisotropic Organic Conductors*, Prairie View Tx., April (2004)

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- **Storr, K**, Balicas, L.; and Brooks, J.S., et al., Superconductivity in an Organic Insulator at Very High Magnetic Fields, National Society of Black Physicists Conference, Atlanta Ga. March (2003)
- Balicas, L.; Brooks, J.S. and **Storr, K.**, et al., *Superconductivity in an organic insulator at very high magnetic fields*, Montana State University, Bozeman, April (2001)
- Balicas, L.; Brooks, J.S. and **Storr, K.**, et al., *Superconductivity in an organic insulator at very high magnetic fields*, National High Magnetic Field Laboratory-Pulsed Field Facility, Los Alamos, New Mexico, June (2001)
- Balicas, L.; Brooks, J.S. and **Storr, K.**, et al., *Superconductivity in an organic insulator at very high magnetic fields*, Physics Department, Oakland University, February (2001)
- Balicas, L.; Brooks, J.S. and **Storr, K.**, et al., *Superconductivity in an organic insulator at very high magnetic fields*, Physics Department, University of Florida, Gainesville, FL, November (2001)
- **Storr, K**, Balicas, L.; and Brooks, J.S., et al., *Magnetic-field-dependent interplay between incoherent and Fermi liquid transport mechanisms in low-dimensional t-phase organic conductors*, 2001, Stanford Ca. March (2001)
- Balicas, L.; Brooks, J.S.; **Storr, K**; Graf, D.; Uji, S.; Shinagawa, H.; Ojima, E.; Fujiwara, H.; Kobayashi, H.; Kobayashi, A. and Tokumoto, M., *Shubnikov-de Haas Effect and Yamaji Oscillations in the Antiferromagnetically Ordered Organic Superconductor k -(BETS) $_2$ FeBr $_4$: A Fermiology Study*, 2001 APS March Meeting, Seattle, WA, March 12-16 (2001)
- Balicas, L.; **Storr, K**; Brooks, J.S.; Uji, S.; Ojima, E.; Fujiwara, H; Kobayashi, H. and Tokumoto, M., *A magnetic field induced phase transition, from metallic to a highly conducting state, in the antiferromagnetic insulator λ -(BETS) $_2$ FeCl $_4$* , 2001 APS March Meeting, Seattle, WA, March 12-16 (2001)
- Brooks, J.S; Uji, S.; Terashima, T.; Terakura, C.; Papavassiliou, G.; Balicas, L. and **Storr, K.**, *Magnetic-field dependent electronic structure in the "tau-phase" class of low dimensional organic metals*, 2001 APS March Meeting, Seattle, WA, March 12-16 (2001)
- **Storr, K.**; Balicas, L.; Brooks, J.S. and Papavassiliou, G., *Magnetic-field-dependent interplay between incoherent and Fermi liquid transport mechanisms in low-dimensional t-phase organic conductors*, 2001 APS March Meeting, Seattle, WA, March 12-16 (2001)
- Brooks, J.S.; Balicas, L.; **Storr, K.**; Ward, B.H.; Uji, S.; Terashima, T.; Terakura, C.; Schlueter, J.A.; Winter, R.W.; Mohtasham, J.; Gard, G.L.; Papavassiliou, G.C. and Tokumoto, M., *Electronic Structure of Novel Cation Radical Salts in High Magnetic Fields. Proceedings of Pac. Chem. Conference.*