Parashu Ram Kharel, PhD

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EDUCATION

Ph. D. (Experimental Condensed Matter Physics)	Wayne State University, Detroit, MI,	2008
M. A. (Physics)	Wayne State University, Detroit, MI,	2006
M. Sc. (Physics)	Tribhuvan University, Nepal (First Class)	1994
B. Sc. (Physics)	Tribhuvan University, Nepal (First Class)	1989

PROFESSIONAL APPOINTMENTS

Assistant Professor	South Dakota State University, SD	2013- Present
Adjunct Assistant Professor	Nebraska Center for Materials and Nanoscience, NE	2014-Present
Postdoctoral Research Associate	University of Nebraska, Lincoln, NE	2009-2013
Part-time Faculty	Wayne State University, Detroit, MI	2008 – 2009
Graduate Research Assistant	Wayne State University, Detroit, MI	2005 - 2008
Graduate Teaching Assistant	Wayne State University	2003 - 2005
Assistant Lecturer	Tri-Chandra Multiple Campus, Nepal	1997 – 2003

RESEARCH AWARDS/RECOGNITIONS

1. **Thomas C. Rumble fellowship** for 2007 - 2008 (WSU award)
2. **ICMR** (International Center for Materials Research) fellowship for summer school, 2008
3. **Editors' suggestions**: *Phys. Rev. B* **79**, 165208 (2009)
4. **Research highlight** *Nature materials* **8**, 446 (2009)
5. **Fifth in the list of top 25 hottest articles**, *Journal of Magnetism and Magnetic Materials* (January - March, 2008).
6. **News article** in IOPP's electronic journal: http://iopscience.iop.org/0953-8984/labtalk-article/47572
7. **Research Highlight,** Journal of Physics D: Applied Physics (**Highlights of 2013**: Structural and magnetic properties of Pr-alloyed MnBi nanostructures)
8. Best Poster award for co-authored poster presentation at 62nd MMM conference (Perpendicular Anisotropy and Electron Transport in Epitaxial Co_2TiSi Films)
9. IOP Outstanding reviewer award 2017
10. Outstanding scholarship award 2018, Dept. of Physics SDSU.

TEACHING AWARDS

1. American Association of Physics Teachers (AAPT) Outstanding Graduate Teaching Assistant Award, 2006.
2. SDSU Physics Department's nominee for an outstanding EXPL faculty member award, 2017.

BOOKS CO-AUTHORED

1. **A Text Book of Higher Secondary Physics Class 11** (2000)
   ISBN: 99933-55-33-X (Nepal)
2. **A Text Book of Higher Secondary Physics Class 12** (2001)
   ISBN: 99933-5-105-9 (Nepal)

PUBLICATIONS (* Corresponding Author)

1. Wenyong Zhang, Yunlong Jin, Ralph Skomski, **Parashu Kharel**, Xingzhong Li, Tingyong Chen, Gejian Zhao, Dongrin Kim, Shah Valloppilly, and D. J. Sellmyer, "Mn_2CrGa-Based Heusler Compounds with Low Net Moment and High Spin Polarization" In Press JPD.

2. Yulong Jin, Rohit Pathak, Shah Valloppilly, Parashu Kharel, Arti Kashyap, Ralph Skomski and David J Sellmyer, "Nanoscale Perpendicular Anisotropy in Co_2TiSi". Submitted.
3. K. Schroeder, J. Waybright, **P. Kharel***, W. Zhang, S. Valloppilly, J. Herran, P. Lukashev, Y. Huh, R. Skomski, and D. J. Sellmyer, "Magnetic and magnetocaloric properties of $Co_{2-x}Fe_xVGa$ Heusler alloys" AIP Advances **8**, 056431 (2018).
4. Juliana Herran, Rishabh Dalal, Paul Gray, **Parashu Kharel**, and Pavel V. Lukashev, "Atomic disorder induced modification of magnetization in MnCrVAl" J. Appl. Phys. **122**, 153904 (2017).
5. R. Sbiaa, I. A. Al-Omari, M. Al Bahri, **P. R. Kharel**, M. Ranjbar, J. Åkerman, and D. J. Sellmyer, "Ni thickness influence on magnetic properties of Co/Ni/Co/Pt multilayers with perpendicular magnetic anisotropy" J. Magn. Magn.Mater. 441, 585(2017).
6. Shouyun Cheng, Lin Wei, James Julson, Kasiviswanathan Muthukumarappan, **Parashu Ram Kharel**, "Upgrading pyrolysis bio-oil to hydrocarbon enriched biofuel over bifunctional Fe-Ni/HZSM-5 catalyst in supercritical methanol" Fuel Processing Technology, 167, 117-126(2017).
7. Shouyun Cheng, Lin Wei,, James Julson, **Parashu Ram Kharel**, Yuhe Cao, Zhengrong Gu "Catalytic liquefaction of pine sawdust for biofuel development on bifunctional Zn/HZSM-5 catalyst in supercritical ethanol" J Anal Appl Pyrolysis. 126, 256(2017).
8. Y. Jin, R. Skomski, **P. Kharel**, S. R. Valloppilly, and D. J. Sellmyer, "Effect of disorder on the resistivity of CoFeCrAl films" AIP Advances **7**, 055834 (2017).
9. Shouyun Cheng, Lin Wei, James Julson, Kasiviswanathan Muthukumarappan, **Parashu Kharel**, Eric Boakye, "Hydrocarbon bio-oil production from pyrolysis bio-oil using non-sulfide Ni-Zn/AlO_2 catalyst" Fuel Processing Technology, 162, 78-86(2017).
10. Shouyun Cheng, Lin Wei, James Julson, Kasiviswanathan Muthukumarappan, **Parashu Kharel**, Yuje Cao, Eric Boakye, Douglas Raynie and Zhengrong Gu, "Hydrodeoxygenation upgrading of pine sawdust bio-oil using zinc metal with zero valency" Journal of the Taiwan Institute of Chemical Engineers, 74, 146(2017).
11. **P. Kharel***, J. Herran, P. Lukashev, Y. Jin, J. Waybright, S. Gilbert, B. Staten, P. Gray, S. Valloppilly, Y. Huh, and D. J. Sellmyer "Effect of disorder on the magnetic and electronic structure of a prospective spin-gapless semiconductor MnCrVAl" AIP Advances **7**, 056402 (2017).
12. Y. Jin, J. Waybright, **P. Kharel***, I. Tutic, J. Herran, P. Lukashev, S. Valloppilly, and D. J. Sellmyer, "Effect of Fe substitution on the structural, magnetic and electron-transport properties of half-metallic Co_2TiSi" AIP Advances **7**, 055812 (2017).
13. Y. Jin, **P. R. Kharel**, S. R. Valloppilly, X.-Z. Li, D. Kim, G. -J. Zhao, T.-Y. Chen, R. Choudhary, A. Kashyap, R. Skomski, and D. J. Sellmyer, "Half-Metallicity in Highly $L2_1$-Ordered CoFeCrAl Thin Films" Appl. Phys. Letter, **109**, 142410 (2016).
14. Wenyong Zhang, **Parashu Kharel**, Tom George, Xingzhong Li, Pinaki Mukherjee, Shah Valloppilly and David J Sellmyer "Origin of grain alignment due to magnetic-field annealing for MnBi:Bi nanocomposites" J. Phys D: Appl. Phys, **49,** 455002, (2016).
15. Y. Jin, **P. Kharel***, P. Lukashev, S. Valloppilly, B. Staten, J. Herran, I. Tutic, M. Mitrakumar, B. Bhusal, A. O'Connell, K. Yang, Y. Huh, R. Skomski and D. J. Sellmyer, Magnetism and electronic structure of CoFeCrX (X = Si,Ge) Heusler alloys, J. Appl. Phys. **120**, 053903(2016).
16. Wenyong Zhang, **Parashu Kharel**, Imad Al-Omari, Jeffrey E. Shield, and David J. Sellmyer "Effect of element substitution on nanostructure and hard magnetism of rapidly quenched $Nd_2Fe_{14}B$" *Phil. Mag.* **96,** 2800(2016).
17. Yuhe Cao, Keliang Wang, Xiaomin Wang, Zhengrong Gu, Qihua Fan, William Gibbons, James D. Hoefelmeyer, **Parashu Ram Kharel**, Maheshwar Shrestha, "Hierarchical porous activated carbon for supercapacitor derived from corn stalk core by potassium hydroxide activation" Electrochim. Acta, **212**, 839(2016).
18. P. Lukashev, **P. Kharel***, S. Gilbert, B. Staten, N. Hurley, R. Fuglsby, Y. Huh, S. Valloppilly, W. Zhang, K. Yang, R. Skomski and D. J. Sellmyer, "Investigation of spin-gapless semiconductivity and half-metallicity in Ti_2MnAl-based compounds" Appl. Phys. Letter, 108, 141901 (2016).

19. Wenyong Zhang, **Parashu Kharel**, Ralph Skomski, Shah Valloppilly, Xingzhong Li, and David J. Sellmyer, "Structure, magnetism, and electrical transport properties of Mn_2CrGa-based nanomaterials" AIP advances, **6**, 056218 (2016).
20. Keliang Wang, Yuhe Cao, Xiaomin Wang, **Parashu Ram Kharel**, William Gibbons, Bing Luo, Zhengrong Gu, Qihua Fan, Lloyd Metzger, Nickel catalytic graphitized porous carbon as electrode material for high performance supercapacitors" Energy, **101**, 9-15(2016).
21. R. Choudhary, **P. Kharel**, S. R. Valloppilly, Y. Jin, A. O'Connell, Y. Huh, S. Gilbert, A. Kashyap, D. J. Sellmyer and R. Skomski, "Structural Disorder and Magnetism in the Spin-Gapless Semiconductor CoFeCrAl", AIP Advances **6**, 056304 (2016).
22. Y. Jin, W. Zhang, **P. Kharel**, S. R. Valloppilly, R. Skomski and D. J. Sellmyer, "Effect of boron doping on nanostructure and magnetism of rapidly quenched Zr_2Co_{11}-based alloys" AIP Advances **6**, 056002 (2016).
23. R. Sbiaa, I. Al-Omari, **P. R. Kharel**, M. Ranjbar, D. Sellmyer, J. Akerman and S. N. Piramanayagam," Temperature effect on exchange coupling and magnetization reversal in antiferromagnetically coupled Co/Pd multilayers" J. Appl. Phys. **118**, 063902 (2015).
24. **P. Kharel***, W. Zhang, R. Skomski, S. Valloppilly, Y. Huh, R. Fuglsby, S. Gilbert, and D. J. Sellmyer, "Magnetism and electron transport in a rapidly quenched CoFeCrAl nanomaterial" J. Phys. D: Appl. Phys. **48**, 245002(2015).
25. Wenyong Zhang, **Parashu Kharel**, Shah Valloppilly, Lamping Yue, and David J. Sellmyer, "High-energy-product MnBi films with controllable anisotropy" Phys. Status Solidi B, 1-6 (2015).
26. A. Nelson, **P. Kharel***, Y. Huh, P. Lukashev, R. Fuglsby, J. Guenther, W. Zhang, S. Valloppilly and D. J. Sellmyer, "Enhancement of Curie temperature in Mn_2RuSn by Co Substitution" J. Appl. Phys. **117**, 153906 (2015).
27. Y. Huh, **P. Kharel***, A. Nelson, V. R. Shah, P. Manchanda, A. Kashyap, R. Skomski, and D. J. Sellmyer, "Effect of Co substitution on the magnetic and electron transport properties of Mn_2PtSn" J. Phys.: Condens. Matter, **27,** 076002 (2015).
28. R. Fuglsby, **P. Kharel***, W. Zhang, S. Valloppilly, Y. Huh and D. J. Sellmyer, "Magnetism of Hexagonal$Mn_{1.5}X_{0.5}Sn$ (X = Cr, Mn, Fe, Co) Nanomaterials" J. Appl. Phys. **117**, 17D115 (2015).
29. Rakesh Kumar Gupta, Mukul Dubey, **Parashu Kharel**, Zhengrong Gu and Qi Hua Fan, "Biocar activated by Oxygen Plasma for Supercapacitors" Journal of Power Sources, 274, 1300(2015).
30. W.Y. Zhang, **P. Kharel,** S. Valloppilly, R. Skomski and D. J. Sellmyer, "Synthesis and Magnetism of single-phase Mn-Ga films" J. Appl. Phys. **117**, 17E306 (2015).
31. D. J. Sellmyer, Y Liu, W. Y. Zhang and **P. Kharel**, "Nanostructuring and Properties of Strong Permanent-Magnet Films" pp 69-72, Conference Proceedings, REPM 2014.
32. W.Y. Zhang, **P. Kharel** and D. J. Sellmyer, "Development of High-Anisotropy MnBi Thick Films" Pp 105-107, Conference Proceedings, REPM 2014.
33. **P. Kharel*,** Y. Huh, N. Al-Aqtash, V. R. Shah, R. F. Sabirianov, R. Skomski and D. J. Sellmyer, "Structural and magnetic transitions in cubic Mn_3Ga." J. Phys.: Condens. Matter 26, 126001 (2014).
34. A. Nelson, Y. Huh, **P. Kharel*,** V. R. Shah, R. Skomski and D J Sellmyer, "Structural, Magnetic and Electron-Transport Properties of $Mn_{3-x}Pt_xSn$ (x = 0, 0.5, 1) Nanomaterials." J. Appl. Phys. **115**, 17A923 (2014).
35. **P. Kharel***, V. R. Shah, W. Zhang, R. Skomski, J. E. Shield and D. J. Sellmyer, "Structural and magnetic properties of Pr alloyed MnBi nanostructures" J. Phys. D: Appl. Phys. **46**, 095003(2013).
36. **P. Kharel*** and D. J. Sellmyer, "High-anisotropy Mn alloys for permanent-magnet applications" Magnetics Technology International, UKIP Media & Events, pp 28-31, 2013.
37. D J Sellmyer, B. Balamurugan, W. Y. Zhang, B. Das, R. Skomski, **P. Kharel** and Y. Liu, "Advances in Rare-Earth-Free Permanent Magnets" PRICM:8 Pacific Rim International Congress on Advanced Materials and Processing, John Wiley and Sons, Inc., pp 1689-1696, 2013.
38. Y. Huh, **P. Kharel***, E. Krage, R. Skomski, J. E. Shield, and D. J. Sellmyer, "Magnetic properties of rapidly quenched tetragonal $Mn_{3-x}Ga$ nanostructures" IEEE Trans. Magn. **49**, 3277 (2013).

39. **P. Kharel***, V. R. Shah, R. Skomski, J. E. Shield and D. J. Sellmyer, "Magnetism of MnBi-based nanostructures" IEEE Trans. Magn. **49**, 3318 (2013).
40. Rui Zhang, Tom A. George, **Parashu Kharel**, Ralph Skomski, and D. J. Sellmyer, "Susceptibility of Fe atoms in Cu clusters" J. Appl. Phys. **113**, 17E148 (2013).
41. Y. Huh, **P. Kharel***, V. R. Shah, X. Z. Li, R. Skomski and D. J. Sellmyer, "Magnetism and electron transport of Mn_yGa ($1 < y < 2$) nanostructures" J. Appl. Phys. **114**, 013906 (2013).
42. **P. Kharel***, X. Z. Li, V. R. Shah, N. Al-Aqtash, K. Tarawneh, R. Sabirianov, R. Skomski and D. J. Sellmyer, "Structural, magnetic and electron transport properties of MnBi:Fe thin films" *J. Appl. Phys*. **111**, 07E326 (2012).
43. **P. Kharel*,** Y. Huh, V. R. Shah, X. Z. Li, N. Al-Aqtash, K. Tarawneh, E. S. Krage, R. F. Sabirianov, R. Skomski, and D. J. Sellmyer, "Structural and magnetic properties of $Mn_{2+\delta}TiSn$" *J. Appl. Phys*. **111**, 07B101 (2012).
44. **P. Kharel***, R. Skomski, P. Lukashev, R. Sabirianov and D. J. Sellmyer, "Spin Correlations and Kondo Effect in a Strong Ferromagnet" *Phys. Rev B* **84**, 014431 (2011).
45. **P. Kharel*** and D. J. Sellmyer, "Anomalous Hall effect and electron transport in ferromagnetic MnBi films" *J. Phys.: Condens. Matter* **23**, 426001 (2011).
46. **News article in IOPP's electronic journal:** Anomalous electron transport in ferromagnetic MnBi, http://iopscience.iop.org/0953-8984/labtalk-article/47572
47. X. Z. Li, **P. Kharel**, V. R. Shah, D. J. Sellmyer, "Synthesis and Characterization of Highly Textured Pt-Bi Thin Films" *Phil. Mag.* **91,** 3406 (2011).
48. X. Z. Li, **P. Kharel**, V. R. Shah, D. J. Sellmyer, "Structural Characterization of Pt-Bi thin films deposited by electron beam evaporation" Microscopy and Microanalysis, 17, 1446 (2011).
49. **P. Kharel**, P. Thapa, P. Lukashev, R. F. Sabirianov, E. Y. Tsymbal, D. J. Sellmyer, and B. Nadgorny, "Transport Spin Polarization of High-Curie Temperature MnBi Films" Phys. Rev B **83**, 024415 (2011).
50. **P. Kharel***, R. Skomski and D. J. Sellmyer, "Spin correlations and electron transport in MnBi:Au films" *J. Appl. Phys*. **109**, 07B709 (2011).
51. M. A. Peck, Y. Huh, R. Skomski, R. Zhang, **P. Kharel**, M. D. Allison, D. J. Sellmyer, and M. A. Langell, "Magnetic Properties of NiO and (Ni, Zn)O Nanoclusters" *J. Appl. Phys*. **109**, 07B518 (2011).
52. M. K. Singh, Y. Yang, C. G. Takoudis, A. Tatarenko, G. Srinivasan, **P. Kharel,** and G. Lawes, "Multiferroic $BiFeO_3$ Thin Films for Multifunctional Devices" *J. Nanosci. Nanotechnol.* 1**0**, 6195 (2010).
53. **P. Kharel***, Ralph Skomski, R. D. Kirby and D. J. Sellmyer, "Structural, magnetic and magneto-transport properties of Pt-alloyed MnBi thin films" *J. Appl. Phys*. **107,** 09E303 (2010).
54. R. Skomski, R. Zhang, **P. Kharel**, A. Enders, and D. J. Sellmyer, "Magnetic Susceptibility of Nanoscale Kondo Systems" *J. Appl. Phys*. **107,** 09E126 (2010).
55. X. L. Wang, D. Li, T. Y. Cui, **P. Kharel**, W. Liu, and Z. D. Zhang, **"**Magnetic and optical properties of multiferroic $GdMnO_3$ nanoparticles" *J. Appl. Phys*. **107,** 09B510 (2010).
56. R. Panguluri, **P. Kharel**, C. Sudakar, R. Naik, R. Suryanarayanan, V. M. Naik, A. G. Petukhov, B. Nadgorny, G. Lawes "Ferromagnetism and spin polarized charge carriers in In_2O_3 thin films" *Phys. Rev. B* **79**, 165208 (2009).
57. **P. Kharel**, A. Kumarasiri, A. Dixit, N. Rogado, R. J. Cava, G. Lawes, "Scaling behavior of magnetic transitions in $Ni_3V_2O_8$" *Phil. Mag. Lett*. **89,** 1923 (2009).
58. A. Dixit, Raghava P. Panguluri, C. Sudakar, **P. Kharel**, P. Thapa, I. Avrutsky, R. Naik, G. Lawes, and B. Nadgorny, "Robust room temperature persistent photoconductivity in polycrystalline indium oxide films" *Appl. Phys. Lett.* **94**, 252105 (2009).
59. Elayaraja Muthuswamy, **Parashu Ram Kharel**, Gavin Lawes, Stephanie L Brock, "Control of Phase in Phosphide Nanoparticles Produced by Metal Nanoparticle Transformation: Fe_2P and FeP" *ACS Nano* **3**, 2383 (2009).
60. Keerthi Senevirathne, Ronald Tackett, **Parashu Ram Kharel**, Gavin Lawes, Kanchana Somaskandan, and Stephanie L. Brock "Discrete, Dispersible MnAs Nanocrystals from Solution Methods: Phase Control on the Nanoscale and Magnetic Consequences" *ACS Nano* **3**, 1129 (2009).

61. M. Singh, Y. Yang, C. G. Takoudis, A. Tatarenko, G. Srinivasan, **P. Kharel**, and G. Lawes, "Metalorganic Chemical Vapor Deposited $BiFeO_3$ films for tunable high-frequency devices" *Electrochem. Solid-State Lett.* **12**, H 161 (2009).
62. Varun Ramasagara Nagarajan, Susil K. Putatunda, **Parashu Kharel** and Gavin Lawes, "Synthesis of Superconducting Thin Films of Magnesium Diboride by Electroless Plating" *Materials and manufacturing process* **24**, 633 (2009).
63. **P. Kharel**, S. Talebi, B. Ramachandran, A. Dixit, V. M. Naik, M. B. Sahana, C. Sudakar, R. Naik, M. S. R. Rao, G. Lawes "Synthesis and characterization of polycrystalline transition metal doped $BiFeO_3$ thin films." *J. Phys.: Condens. Matter* **21**, 036001 (2009).
64. **P. Kharel**, C. Sudakar, A. Dixit, A. B. Harris, R. Naik, G. Lawes "Electric field control of magnetic phase transitions in $Ni_3V_2O_8$" *Europhys. Lett.* **86**, 17007 (2009).
65. Varun Ramasagara Nagarajan, **Parashu Ram Kharel**, Susil K. Putatunda and Gavin Lawes "Synthesis and Characterization of Superconducting Lead Films by Electroless Plating on Metallic and Non-Metallic Substrates" *Materials Science and Engineering B* **151**, 191 (2008).
66. C. Sudakar, **P. Kharel**, G. Lawes, R. Suryanarayanan, R. Naik and V. M. Naik "Surface ferromagnetism and exchange bias in vacuum annealed $Co_{3-y}Zn_yO_4$ films" *Appl. Phys. Lett.* **92**, 062501 (2008).
67. C. Sudakar, **P. Kharel**, R. Suryanarayanan, J. S. Thakur, V. M. Naik, R. Naik and G. Lawes, "Room temperature ferromagnetism in vacuum annealed TiO_2 thin films" *J. Magn. Magn. Mater.* **320**, L 31 (2008).
68. J. S. Thakur, G. W. Auner, V. M. Naik, C. Sudakar, **P. Kharel**, G. Lawes, R.Suryanarayanan, and R. Naik "Raman scattering studies of magnetic Co-doped ZnO thin films" *J. Appl. Phys.* **102**, 093904 (2007).
69. **P. Kharel**, C. Sudakar, M. B. Sahana**,** G. Lawes, R. Suryanarayan, R. Naik and V. M. Naik, "Room temperature ferromagnetism in Cr doped In_2O_3 on high vacuum annealing of thin films and bulk samples." *J. Appl. Phys*. **101,** 09H117 (2007).
70. C. Sudakar, **P. Kharel**, G. Lawes, R. Suryanarayan, R. Naik and V. M. Naik "Magnetism in Zn_{1-x} Co_x O ($0 < x < 0.1$) and Co_{3-y} Zn_y O_4 ($y = 0$, 0.25, and 1) Thin Films" *J. Appl. Phys*. **101,** 09H118 (2007).
71. C. Sudakar**, P. Kharel,** G. Lawes and R. Naik, "Synthesis and characterization of thin film multiferroic $Ni_3V_2O_8$" *Phil. Mag. Lett*. **87,** 223 (2007).
72. C. Sudakar, **P. Kharel**, G. Lawes, R. Suryanarayan, R. Naik and V. M. Naik, "Raman spectroscopic studies of oxygen defects in Co-doped ZnO films exhibiting room temperature ferromagnetism." *J. Phys.: Condens. Matter* **19,** 026212 (2007).
73. K. Padmanabhan, N. E. Harvey, **Parashu Kharel,** P. Talagala, R. Naik, G. W. Auner, V. M. Naik, R. Suryanarayanan, S. Thevuthasan, V. Shutthanandan, "Structural studies of Titanium oxide films deposited with metal organic decomposition" *Nucl. Instrum. Methods B* **249**, 540 (2006).
74. **P. Kharel**, C. Sudakar, G. Lawes, R. Suryanarayan, R. Naik and V. M. Naik, "Concentration and defect dependent ferromagnetism above room temperature in Co doped ZnO films prepared by metalorganic decomposition." *Mater. Res. Soc. Symp. Proc.* **891**, 0891-EE10-14 (2005).
75. R. Suryanarayanan, V. M. Naik, **P. Kharel**, P. Talagala, and R. Naik, "Ferromagnetism at 300K in spin coated films of Co doped anatase and rutile TiO_2" *Solid State Commun.* **133**, 439 (2005).
76. R. Suryanarayanan, V. M. Naik, **P. Kharel**, P. Talagala, and R. Naik, "Room temperature ferromagnetism in spin coated anatase and rutile $Ti_{0.95}Fe_{0.05}O_2$ films." *J. Phys.: Condens. Matter* **17**, 755 (2005).

PRESENTATIONS/ABSTRACTS

1. **P. Kharel**, C. Shank, K. Schroeder, W. Zhang, S. Valloppilly, P. Lukashev, R. Skomski, and D. J. Sellmyer, "Magnetism and electronic structure of tetragonal Co_2PtGa" 62nd Annual Conference on Magnetism and Magnetic Materials, 11/*06-11/10/ 2017, Pittsburgh, PA. Poster Presentation.*
2. K. Schroeder, J. Waybright, **P. Kharel**, W. Zhang, S. Valloppilly, P. Lukashev, Y. Huh, R. Skomski, and D. J. Sellmyer, Magnetic and magnetocaloric properties of $Co_{2-x}Fe_xVGa$ heusler compounds" 62nd Annual Conference on Magnetism and Magnetic Materials, 11/*06-11/10/ 2017, Pittsburgh, PA. Poster Presentation.*
3. **P. Kharel**, P. Lukashev, Y. Jin, J. Waybright, S. Gilbert, P. Gray, B. Staten, S. Valloppilly, Y. Huh and D. J. Sellmyer, "Effect of disorder on the magnetic an electronic band properties of a prospective spin

gapless semiconductor MnCrVAl" 61st Annual Conference on Magnetism and Magnetic Materials, 10/*31-11/4/ 2016, New Orleans, LA. Poster Presentation.*

4. Y. Jin, **P. Kharel**, P. Lukashev, J. Waybright, I. Tutic, J. Herran, S. R. Valloppilly, and D. J. Sellmyer "Effect of Fe substitution for Ti on the structural, magnetic and electronic band properties of half-metallic Co2TiSi" 61st Annual Conference on Magnetism and Magnetic Materials, 10/*31-11/4/ 2016, New Orleans, LA. Poster Presentation.*
5. **P. Kharel**, Y. Jin, S. Valloppilly, A. O'Connell, Y. Huh, K. Yang and D J Sellmyer "Structural and magnetic properties of CoFeCrSi Heusler alloy" *Joint MMM/ INTERMAG Conference, 1/11-1/15/ 2016, San Diego, CA. Oral Presentation*
6. **P. Kharel**, R. Fuglsby, S. Gilbert, Y. Huh, W. Zhang, S. Valloppilly, R. Skomski, and D. J. Sellmyer, "Structural, Magnetic and Electron-transport Properties of Rapidly quenched CoFeCrAl Nanomaterials" *2015 APS March meeting, 3/2 -3/6,* San Antonio, TX. *Oral Presentation.*
7. **P. Kharel**, Y. Huh, A. Nelson, V. R. shah, R. Skomski, and D. J. Sellmyer, "Effect of Co doping on the structural, magnetic and electron transport properties of Mn_2PtSn Heusler alloys" *2014 APS March meeting, 3/3 -3/7, Denver, Co. Oral Presentation.*
8. **P. Kharel**, Y. Huh, V. R. Shah, R. Skomski, and D. J. Sellmyer, "Magnetism of MnGa-based nanostructures" *2013 APS March meeting, 3/28 -3/22, Baltimore, MD. Oral Presentation.*
9. **P. Kharel**, V. R. Shah, R. Skomski, J. E. shield and D. J. Sellmyer, "Magnetism of MnBi-based nanostructures." *Joint MMM/ INTERMAG Conference, 1/14-1/18/ 2013, Chicago, IL. Poster Presentation.*
10. **P. Kharel**, Y. Huh, V. R. Shah, X. Z. Li, N. Al-Aqtash, K. Tarawneh, E. S. Krage, R. F. Sabirianov, R. Skomski, and D. J. Sellmyer, "Structural and Magnetic Properties of $Mn_{2+\delta}TiSn$" *56th MMM Conference, 10/30-11/03/ 2011, Scottsdale, AZ. Oral Presentation.*
11. **P. Kharel**, X. Z. Li, V. R. Shah, N. Al-Aqtash, K. Tarawneh, R. F. Sabirianov, R. Skomski, and D. J. Sellmyer, "Structural, Magnetic and electron transport properties of MnBi:Fe films" *56th MMM Conference, 10/30-11/03/ 2011, Scottsdale, AZ. Poster Presentation.*
12. **P. Kharel** and D. J. Sellmyer, "Anomalous electron transport in ferromagnetic MnBi films" *2011 APS March meeting, 3/21 -3/25, Dallas,* Tx. *Oral Presentation.*
13. **P. Kharel**, Ralph Skomski and D. J. Sellmyer, "Spin correlations and electron transport in MnBi:Au films" *55th MMM Conference, 11/14-11/18/ 2010, Atlanta, GA. Poster Presentation.*
14. M. A. Peck, Y. Huh, R. Skomski, R. Zhang, **P. Kharel**, M. D. Allison, D. J. Sellmyer, and M. A. Langell, "Magnetic Properties of NiO and (Ni, Zn)O Nanoclusters. *55th MMM Conference, 11/14-11/18/2010, Atlanta, GA. Oral Presentation.*
15. **P. Kharel**, R. Skomski, R. D. Kirby and D. J. Sellmyer, "Unusual Kondo effect in MnBi-Pt thin films" *2010 APS March meeting, 3/15 -3/19, Portland, OR. Oral Presentation.*
16. **P. Kharel**, Ralph Skomski, R. D. Kirby and D. J. Sellmyer, "Structural, magnetic and magneto-transport properties of Pt-alloyed MnBi thin films" *10th Joint MMM/ INTERMAG Conference, 1/18-1/22/ 2010, Washington, DC. Oral Presentation.*
17. X. L. Wang, D. Li, T. Y. Cui, **P. Kharel**, W. Liu, and Z. D. Zhang, **"**Magnetic and optical properties of multiferroic $GdMnO_3$ nanoparticles" *10th Joint MMM/ INTERMAG Conference, 1/18-1/22/ 2010, Washington, DC. Poster Presentation.*
18. **P. Kharel**, Ralph Skomski and D. J. Sellmyer, "Structural, magnetic and magneto-transport properties of Pt-alloyed MnBi thin films" *Nebraska MRSEC Review and Symposium, 10/1-2/2009, Lincoln, NE. Poster Presentation.*
19. **P. Kharel,** C. Sudakar, A. B. Haris, R. Naik, G. Lawes "Electric field control of magnetic phase transitions in $Ni_3V_2O_8$" *2008 APS March meeting, 3/10 -3/14, NewOrlens, LA. Oral Presentation.*
20. **P. Kharel**, C. Sudakar, J. Thakur, G. Lawes, R. Naik, V. M. Naik, "Room temperature ferromagnetism in undoped TiO_2" *2007 APS March meeting, 3/5-3/9, Denver, CO. Oral Presentation.*
21. **P. Kharel**, C. Sudakar, M. B. Sahana**,** G. Lawes, R. Suryanarayan, R. Naik and V. M. Naik, "Room temperature ferromagnetism in Cr doped In_2O_3 on high vacuum annealing of thin films and bulk samples." *10th Joint MMM/ INTERMAG Conference, 1/7-1/11/ 2007, Baltimore, MD. Oral Presentation.*

22. **P. Kharel**, C. Sudakar, G. Lawes, R. Suryanarayan, R. Naik and V. M. Naik "Micro-Raman and magnetic studies on Co: ZnO films" *OSAPS and MIAPPT joint meeting 3/31- 4/1/2006, Detroit, MI. Oral Presentation.*
23. **P. Kharel**, C. Sudakar, G. Lawes, R. Suryanarayan, R. Naik and V. M. Naik "Defect Activated Room Temperature Ferromagnetism in Co: ZnO Films-Micro Raman Studies" *2006 APS March meeting, 3/13-3/17, Baltimore, MD. Oral Presentation.*
24. **P. Kharel**, C. Sudakar, G. Lawes, R. Suryanarayan, R. Naik and V. M. Naik "Concentration and Defect Dependent Ferromagnetism above Room Temperature in Co Doped ZnO Films Prepared by Metalorganic Decomposition" *2005 MRS Fall meeting, 11/28 -12/2, Boston, MA. Poster Presentation.*
25. **P. Kharel,** P. Talagala, G. Lawes, R. Naik, G. W. Auner, V. M. Naik, and R. Suryanarayanan, "Room Temperature Ferromagnetism in transition metal (Fe, Co) Doped TiO_2 Spin coated Films" *2005 APS March meeting, 3/21-3/25, Los Angeles, CA. Poster Presentation.*

CO-AUTHORED PRESENTATIONS/ABSTRACTS

1. J. Waybright, **P. Kharel**, L. Halbritter, H. Qian, R. Pahari, S. Valloppilly, P. Lukashev, Y. Huh, and D. J. Sellmyer, "Magnetic and magnetocaloric properties of $NiFeMnGa_{0.5}Sn_{0.5}$ Heusler alloys" *2018 APS March meeting, 3/5-3/9, Los Angeles, CA. Oral Presentation.*
2. Juliana Herran, Rishabh Dalal, Paul Gray, **Parashu Kharel** and Pavel Lukashev, "Atomic disorder induced modification of magnetization in MnCrVAl."*2018 APS March meeting, 3/5-3/9, Los Angeles, CA. Oral Presentation.*
3. Y. Jin, R. Pathak, S. R. Valloppilly, **P. R. Kharel**, G. Zhao, D. Kim, A. Kashyap, T. Chen, R. Skomski, and D. J. Sellmyer, "Perpendicular Anisotropy and Electron Transport in Epitaxial Co_2TiSi Films" 62nd Annual Conference on Magnetism and Magnetic Materials, 11/*06-11/10/ 2017, Pittsburgh, PA. Poster Presentation.* ***Winner of best poster award***
4. Jace Waybright**,** Basanta Bhusal, Yung Huh and **Parashu Kharel**, "Crystal structure and magnetism in Mn_2FeSb Heusler compounds" *Proceedings of the South Dakota Academy of Science, Vol. 96, page 190 (2017). Oral Presentation, 102nd Annual Meeting of South Dakota Academy of Sciences, 3/31-4/1/2016, Dakota Wesleyan University, SD.*
5. Ralph Skomski, Yunlong Jin, Jace Waybright, **Parashu Kharel,** Rohit Pathak, Renu Choudhary, Arti Kashyap, and D.J Sellmyer, "Chemical-disorder effects in half-metallic Heusler alloys" *2017 APS March meeting, 3/13-3/17, New Orleans, LA. Oral Presentation.*
6. Yung Huh, Swarangi Joshi, Sanmati Jain, Ojas Pathak, **Parashu Kharel**, "Magnetism and Structure of a half-metallic Heusler compound Co-Mn-Cr-Si" *2017 APS March meeting, 3/13-3/17, New Orleans, LA. Poster Presentation.*
7. Y. Jin, **P. Kharel**, S. R. Valloppilly, X. L. Li, D. R. Kim, G. J. Zhao, T. Y. Chen, R. Skomski, and D. J. Sellmyer, "Magnetism, electron-transport and spin polarization of epitaxial CoFeCrAl films" 61st Annual Conference on Magnetism and Magnetic Materials, 10/*31-11/4/ 2016, New Orleans, LA. Oral Presentation*
8. Wenyong Zhang, **Parashu Kharel**, Shah Valloppilly, Tingyong Chen, Ralph Skomski, and David J. Sellmyer "Synthesis of compensated ferrimagnetic Mn_2CrGa with Pt and Fe substitution for Cr" 61st Annual Conference on Magnetism and Magnetic Materials, 10/*31-11/4/ 2016, New Orleans, LA. Oral Presentation*
9. Mukesh Mithrakumar**,** Basanta Bhusal, Yung Huh and **Parashu Kharel**, "Tuning Magnetic Properties of Co_2FeGe with Cr Substitution for Fe" *Proceedings of the South Dakota Academy of Science, Vol. 95, page 156 (2016). Poster Presentation, 101th Annual Meeting of South Dakota Academy of Sciences, 4/8-9/2016, Sioux Falls, SD.*
10. P. Lukashev, S. Gilbert, B. Staten, N. Hurley, R. Fuglsby, **P. Kharel**, Y. Huh, S. Valloppilly, W. Zhang, K. Yang, and D. J. Sellmyer, "Development of spin gapless semiconductivity and half metallicity in Ti_2MnAl by substitutions for Al" *2016 APS March meeting, 3/14-3/18, Baltimore, MD. Oral Presentation.*
11. Megan M. Allyn, **Parashu Kharel**, Lihua Wang, Prem P. Vaishnava and Ronald J. Tackett, "The investigation of smart magnetic nanoparticles for use in the hyperthermia treatment of cancer" *2016 APS March meeting, 3/14-3/18, Baltimore, MD. Oral Presentation.*

12. Y. Huh, S. Gilbert, **P. Kharel**, Y. Jin, P. Lukashev, S. Valloppilly and D. J. Sellmyer, "Structural and magnetic properties of a prospective spin gapless semiconductor MnCrVAl" *2016 APS March meeting, 3/14-3/18, Baltimore, MD. Oral Presentation.*
13. Y.-L. Jin, **P. Kharel**, S. R. Valloppilly, T. A. George, B. Balasubramanian, R. Skomski, and D. J. Sellmyer, "Magnetic and electron-transport properties of spin-gapless semiconducting CoFeCrAl films" *2016 APS March meeting, 3/14-3/18, Baltimore, MD. Oral Presentation.*
14. R. Choudhary, **P. Kharel**, S. R. Valloppilly, Y. Jin, A. O'Connell, Y. Huh, S. Gilbert, A. Kashyap, D. J. Sellmyer and R. Skomski, "Structural and Thermal Disorder in the Spin-Gapless Semiconductor CoFeCrAl" *Joint MMM/ INTERMAG Conference, 1/11-1/15/ 2016, San Diego, CA. Poster Presentation.*
15. Y. Jin, W. Zhang, **P. Kharel**, S. R. Valloppilly, R. Skomski and D. J. Sellmyer, "Effect of boron doping on nanostructure and magnetism of rapidly quenched Zr_2Co_{11}-based alloys" *Joint MMM/ INTERMAG Conference, 1/11-1/15/ 2016, San Diego, CA. Oral Presentation.*
16. Wenyong Zhang, **Parashu Kharel**, Shah Valloppilly, and David J. Sellmyer, "Magnetism of Mn_2CrGa Heusler Compound" *Joint MMM/ INTERMAG Conference, 1/11-1/15/ 2016, San Diego, CA. Oral Presentation.*
17. **Parashu Kharel**, Wenyong Zhang, Ralph Skomski, Shah Valloppilly, Yung Huh, Ryan Fuglsby, Simeon Gilbert, and David J Sellmyer, "Effect of disorder on the magnetic and electron-transport properties of a prospective spin gapless semiconductor CoFeCrAl" *20th International Conference on Magnetism, 7/5-10/2015, Barcelona, Spain. Poster Presentation.*
18. Simeon Gilbert, Ryan Fuglsby, Yung Huh and **Parashu Kharel**, Synthesis and Characterization of Ti_2MnAl: A Potential Spin Gapless Semiconductor, South Dakota Academic of Sciences annual meeting, 4/10-11/2015, Oacoma, SD. Oral Presentation.
19. R. Fuglsby, **P. Kharel**, W. Zhang, S. Valloppilly, Y. Huh and D. J. Sellmyer, "Structural and Magnetic Properties of $Mn_{1.5}X_{0.5}Sn$ (X = Cr, Mn, Fe, Co) Melt-spun Ribbons" *2015 APS March meeting, 3/2 -3/6,* San Antonio, TX. *Poster Presentation.*
20. R. Fuglsby, **P. Kharel**, W. Zhang, S. Valloppilly, Y. Huh and D. J. Sellmyer, "Magnetism of Hexagonal $Mn_{1.5}X_{0.5}Sn$ (X = Cr, Mn, Fe, Co) Nanomaterials" 59th *MMM Conference, 11/3-11/7/2014, Honolulu, HI. Oral Presentation.*
21. Y. Huh, A. Nelson, J. Guenther, M. Dubey, Q. Fan, S.Valloppilly, W. Zhang, D. J. Sellmyer and **P. Kharel** "Synthesis and Magnetism of $Mn_{3+x}Sn$ (x = 0, 0.5) films" 59th *MMM Conference, 11/3-11/7/2014, Honolulu, HI. Poster Presentation.*
22. W.Y. Zhang, **P. Kharel**, S. Valloppilly, R. Skomski, and D. J. Sellmyer, "Synthesis and Magnetism of Single-Phase Mn-Ga Films" 59th *MMM Conference, 11/3-11/7/2014, Honolulu, HI. Poster Presentation.*
23. **P. Kharel**, R. Skomski, P. Manchanda, Y. Huh, A. Nelson, V. R. Shah, G. C. Hadjipanayis, and D. J. Sellmyer, "Anisotropy and Micromagnetism of Heusler Alloys", *The 23rd International Workshop on Rare Earth and Future Permanent Magnets and Their Applications (REPM2014), 8/17-8/21/2014, Annapolis, MD. Poster Presentation.*
24. D. J. Sellmyer, Y. Liu, W. Y. Zhang, **P. Kharel**, P. Manchanda, T. A. George and R. Skomski," Nanostructuring and Properties of Strong Permanent–magnet Films" *The 23rd International Workshop on Rare Earth and Future Permanent Magnets and Their Applications (REPM2014), 8/17-8/21/2014, Annapolis, MD. Invited Presentation.*
25. W. Y. Zhang, **P. Kharel** and D. J. Sellmyer, "Development of High Anisotropy Thick MnBi Films" *The 23rd International Workshop on Rare Earth and Future Permanent Magnets and Their Applications (REPM2014), 8/17-8/21/2014, Annapolis, MD. Poster Presentation.*
26. P. Manchanda, R. Skomski, **P. Kharel**, Y. Huh, A. Nelson, V.R. Shah, A. Kashyap, G. Hadjipanayis, D. J. Sellmyer, "Magnetization and Anisotropy of Tetragonal Mn_2(Pt, Co)Sn Heusler Alloys", *2014 IEEE International Magnetics Conference, 5/4-5/8/2014, Dersden, Germany. Oral Presentation.*
27. D. J. Sellmyer, B. Balamurugan, **P. Kharel**, W. Zhang, B. Das, R. Skomski, "Novel Structures and Physics of Nanoscale Magnets" *2nd USA International Conference on Surfaces, Coatings, and NANOStructured MATerials (NANOSMAT USA), 5/19-5/22/2014, Houston, TX. Invited Presentation.*

28. Y. Huh, **P. Kharel,** A. Nelson, V. Shah, R Skomski, and D. J. Sellmyer "Magnetic, Electrical and structural study of Mn-Co-Sn nanomaterials" *2014 APS March meeting, 3/3 -3/7, Denver, Co. Oral Presentation.*
29. A. Nelson, Y. Huh, **P. Kharel**, V. R. Shah, R. Skomski, and D. J. Sellmyer, "Structural and Magnetic Properties of $Mn_{3-x}Pt_xSn$ (x = 0, 0.5, 1) Nanomaterials" *58th MMM Conference, 11/4-11/8/2013, Denver, CO. Poster Presentation.*
30. R. Skomski, **P. Kharel**, Y. Huh and D J Sellmyer, "Generalized Kondo Effect in Mn_3Ga" *58th MMM Conference, 11/4-11/8/2013, Denver, CO. Oral Presentation.*
31. Y. Huh, P. Kharel, E. Krage, R. Skomski, J. E. shield and D. J. Sellmyer, "Magnetic Properties of Rapidly Quenched Cubic, Tetragonal and Hexagonal $Mn_{3-x}Ga$ Nanostructures" *Joint MMM/ INTERMAG Conference, 1/14-1/18/ 2013, Chicago, IL. Poster Presentation.*
32. Yung Huh, **P. Kharel**, V R Shah, X Z Li, N Al-Aqtash, K Tarawneh, E S Krage, R F Sabirianov, R Skomski and D J Sellmyer, *2012 APS March meeting, 2/27 -3/2, Boston, MA. Oral Presentation.*
33. Pushkal Thapa, **P Kharel**, R Sabirianov, M Faiz, J Borchers, D Sellmyer and B Nadgorny, *2012 APS March meeting, 2/27 -3/2, Boston, MA. Oral Presentation.*
34. Yung Huh, M. Peck, R. Skomski, R. Zhang, **P. Kharel,** M. Allison, D. J. Sellmyer, and M. Langell " Field Dependence of T_B in NiO and (Ni, Zn)O nanoslusters" *2011 APS March meeting, 3/21 -3/25, Dallas,* Tx. *Oral Presentation.*
35. M. Allison**,** T. George**, P. Kharel,** D. J. Sellmyer, and Y. Huh "Composition dependence of the Anomalous Hall Effect in L10 FePt Thin Films" *2011 APS March meeting, 3/21 -3/25, Dallas,* Tx. *Poster Presentation.*
36. Pushkal Thapa**, Parashu Kharel**, Pavel Lukashev, Renat Sabirianov, Evgeny Tsymbal , David Sellmyer, and Boris Nadgorny, "Transport Spin Polarization of High- Curie Temperature MnBi films" *2011 APS March meeting, 3/21 -3/25, Dallas,* Tx. *Oral Presentation.*
37. Akila Kumarasiri, **Parashu Kharel**, Ambesh Dixit, Mike Nowak and Gavin Lawes, "Modifying phase transitions and spin structure of $Ni_3V_2O_8$ through transition metal doping" *2010 APS March meeting, 3/15 - 3/19, Portland, OR. Oral Presentation.*
38. R. Skomski, R. Zhang, **P. Kharel**, A. Enders, and D. J. Sellmyer, "Magnetic Susceptibility of Nanoscale Kondo Systems", *10th Joint MMM/ INTERMAG Conference, 1/18-1/22/ 2010, Washington, DC. Oral Presentation.*
39. Raghava Panguluri, A. Dixit, C. Sudakar, **P. Kharel**, Pushkal Thapa, I. A. Avrutsky, Alexander Efros, R. Naik, G. Lawes, B. Nadgorny, "UV Induced Room Temperature Persistent Photocurrent in In_2O_3 thin films." *2009 APS March meeting, 3/16 -3/20, Pittusberg, PA. Oral Presentation.*
40. Akila Kumarasiri, **Parashu Kharel**, Ambesh Dixit, Gavin Lawes, "Effect of Zn doping on the phase transition temperature of $Ni_3V_2O_8$." *2009 APS March meeting, 3/16 -3/20, Pittusberg, PA. Oral Presentation.*
41. E. Muthuswami, **P. Kharel**, G. Lawes, S. L. Brock, "Factors Influencing Phase Stability in the Formation of Fe-P Nanoparticles." *NASSC 2009, Columbus, OH, 6/17- 6/20. Oral Presentation.*
42. R. Panguluri, **P. Kharel**, C. Sudakar, R. Naik, B. Nadgorny, G. Lawes, R.Suryanarayanan, and V. M. Naik, "Carrier mediated Ferromagnetism in $Cr:In_2O_3$." *2008 APS March meeting, 3/10 -3/14, NewOrlens, LA. Oral Presentation.*
43. **P. Kharel**, S. Talebi, C. Sudakar, M. B. Sahana, V. M. Naik, R. Naik and G. Lawes, "Synthesis and characterization of multiferroic polycrystalline transition metal doped $BiFeO_3$ thin films." *IEEE Intermag Conference, 5/4 - 5/8/2008, Madrid, Spain. Poster Presentation.*
44. K. Senevirathne, R. J. Tackett, **P. R. Kharel**, G. Lawes, S. L. Brock "Control of Phase in Discrete (Unsupported) Nanoparticles of MnAS: Consequences for the First Order Magnetostructural Transition." *2008 MRS Fall Meeting, 12/1-12/5, Boston, MA. Oral Presentation.*
45. K. Senevirathne, R. J. Tackett, **P. R. Kharel**, G. Lawes, S. L. Brock "Control of Phase in Discrete (Unsupported) Nanoparticles of MnAS: Consequences for the First Order Magnetostructural Transition." *Solid State Gordon Conference, 7/27- 7/31/2008, New London, NH. Poster Presentation.*
46. G. Lawes, C. Sudakar, **P. Kharel**, and R. Naik, "Synthesis and characterization of thin $Ni_3V_2O_8$." *2007 APS March meeting, 3/5-3/9, Denver, CO. Oral Presentation.*

47. C. Sudakar, **P. Kharel**, G. Lawes, R. Suryanarayan, R. Naik and V. M. Naik "Magnetism in Zn_{1-x} Co_x O ($0 < x < 0.1$) and Co_{3-y} Zn_y O_4 (y=0, 0.25, and 1) Thin Films" *10th Joint MMM/ INTERMAG Conference, 1/7-1/11/ 2007, Baltimore, MD. Oral Presentation.*
48. V. M. Naik, **P. Kharel**, C. Sudakar, G. Lawes, R. Suryanarayanan, and R. Naik, "Oxygen Defects in Cobalt Doped ZnO Films Exhibiting Room Temperature Ferromagnetism - Raman Spectroscopic Investigation." *20th International Conference on Raman Spectroscopy, 8/20- 8/25/2006, Yokohama, Japan. Poster Presentation.*

INVITED PRESENTATIONS/ABSTRACTS

1. **P. Kharel**, "Research Experiences for Physics Undergraduates in Novel Magnetic Materials at South Dakota State University" *100th Annual Meeting of South Dakota Academy of Sciences, 4/10-11/2015, Oacoma, SD. Oral Presentation.*
2. **P. Kharel**, "Spin gapless semiconductivity in Heusler compounds: overview and applications" *11/18/2015, Department of Physics, University of Northern Iowa, Cedar Falls, IA. Colloquium Presentation.*
3. **P. Kharel**, "Investigation of spin-gapless semiconductivity and half-metallicity in CoFeCrAl-based compounds" 04/16/2016, Gavin Lawes Memorial Symposium, Wayne State University, Detroit, MI.
4. **P. Kharel**, "Magnetism and Electronic Structure in CoFeCrX (X= Si, Ge) Heusler alloys" 04/22/2016, Nanomagnetic group, Nebraska Center for Materials and Nanoscience, UNL.
5. **P. Kharel** "$La_{1-x}Sr_xMnO_3$ Nanostructures: Novel Room-temperature Magnetic Refrigerants" *Department of Physics, University of Nebraska, Omaha, 4/6/2018.*

PUBLICATIONS WITH SDSU UNDERGRADUATE STUDENTS (Undergraduate students are underlined)

1. K. Schroeder, J. Waybright, **P. Kharel***, W. Zhang, S. Valloppilly, J. Herran, P. Lukashev, Y. Huh, R. Skomski, and D. J. Sellmyer, "Magnetic and magnetocaloric properties of $Co_{2-x}Fe_xVGa$ Heusler alloys" AIP Advances **8**, 056431 (2018).
2. **P. Kharel**, J. Herran, P. Lukashev, Y. Jin, J. Waybright, S. Gilbert, B. Staten, P. Gray, S. Valloppilly, Y. Huh, and D. J. Sellmyer "Effect of disorder on the magnetic and electronic structure of a prospective spin-gapless semiconductor MnCrVAl" AIP Advances **7**, 056402 (2017).
3. Y. Jin, J. Waybright, **P. Kharel**, I. Tutic, J. Herran, P. Lukashev, S. Valloppilly, and D. J. Sellmyer, "Effect of Fe substitution on the structural, magnetic and electron-transport properties of half-metallic Co_2TiSi" AIP Advances **7**, 055812 (2017).
4. Y. Jin, **P. Kharel**, P. Lukashev, S. Valloppilly, B. Staten, J. Herran, I. Tutic, M. Mitrakumar, B. Bhusal, A. O'Connell, K. Yang, Y. Huh, R. Skomski and D. J. Sellmyer, Magnetism and electronic structure of CoFeCrX (X = Si,Ge) Heusler alloys, J. Appl. Phys. **120**, 053903(2016).
5. P. Lukashev, **P. Kharel**, S. Gilbert, B. Staten, N. Hurley, R. Fuglsby, Y. Huh, S. Valloppilly, W. Zhang, K. Yang, R. Skomski and D. J. Sellmyer, "Investigation of spin-gapless semiconductivity and half-metallicity in Ti_2MnAl-based compounds" Appl. Phys. Letter, 108, 141901 (2016).
6. R. Choudhary, **P. Kharel**, S. R. Valloppilly, Y. Jin, A. O'Connell, Y. Huh, S. Gilbert, A. Kashyap, D. J. Sellmyer and R. Skomski, "Structural Disorder and Magnetism in the Spin-Gapless Semiconductor CoFeCrAl", AIP Advances **6**, 056304 (2016).
7. **P. Kharel**, W. Zhang, R. Skomski, S. Valloppilly, Y. Huh, R. Fuglsby, S. Gilbert, and D. J. Sellmyer, "Magnetism and electron transport in a rapidly quenched CoFeCrAl nanomaterial" J. Phys. D: Appl. Phys. **48**, 245002(2015).
8. A. Nelson, **P. Kharel**, Y. Huh, P. Lukashev, R. Fuglsby, J. Guenther, W. Zhang, S. Valloppilly and D. J. Sellmyer, "Enhancement of Curie temperature in Mn_2RuSn by Co Substitution" J. Appl. Phys. **117**, 153906 (2015).

9. Y. Huh, **P. Kharel**, A. Nelson, V. R. Shah, P. Manchanda, A. Kashyap, R. Skomski, and D. J. Sellmyer, "Effect of Co substitution on the magnetic and electron transport properties of Mn_2PtSn" J. Phys.: Condens. Matter, **27,** 076002 (2015).
10. R. Fuglsby, **P. Kharel**, W. Zhang, S. Valloppilly, Y. Huh and D. J. Sellmyer, "Magnetism of Hexagonal $Mn_{1.5}X_{0.5}Sn$ (X = Cr, Mn, Fe, Co) Nanomaterials" J. Appl. Phys. **117**, 17D115 (2015).
11. A. Nelson, Y. Huh, **P. Kharel,** V. R. Shah, R. Skomski and D J Sellmyer, "Structural, Magnetic and Electron-Transport Properties of $Mn_{3-x}Pt_xSn$ (x = 0, 0.5,1) Nanomaterials." J. Appl. Phys. **115**, 17A923 (2014).
12. Y. Huh, **P. Kharel**, E. Krage, R. Skomski, J. E. Shield, and D. J. Sellmyer, "Magnetic properties of rapidly quenched tetragonal $Mn_{3-x}Ga$ nanostructures" IEEE Trans. Magn. **49**, 3277 (2013).
13. **P. Kharel,** Y. Huh, V. R. Shah, X. Z. Li, N. Al-Aqtash, K. Tarawneh, E. S. Krage, R. F. Sabirianov, R. Skomski, and D. J. Sellmyer, "Structural and magnetic properties of $Mn_{2+\delta}TiSn$" *J. Appl. Phys*. **111**, 07B101 (2012).
14. M. A. Peck, Y. Huh, R. Skomski, R. Zhang, **P. Kharel**, M. D. Allison, D. J. Sellmyer, and M. A. Langell, "Magnetic Properties of NiO and (Ni, Zn)O Nanoclusters" *J. Appl. Phys*. **109**, 07B518 (2011).

PROFESSIONAL SERVICES/ACTIVITIES

Journal Peer Review Services: Journal of Physics D: Applied Physics, Journal of Physics: Condensed Matter, Journal of Applied Physics, Thin Solid Films, Japanese Journal of Applied Physics, Nanotechnology, Chemical Papers, Journal of Physics and Chemistry of Solids, Applied Physics A, Journal of Magnetism and Magnetic Materials, Metals, AIP Advances, Applied Surface Science, Magnetochemistry, IEEE Transactions on magnetics, Journal of Alloys and Compounds, Materials Research Express.

Guest editor: Special issue of Metals journal: Novel magnetic alloys

Academic Research Conference Services

1. Session-chair: 56th MMM Conference, 2011
2. Session-chair and judge for the poster competition: WoPhys13, University of Nebraska, Lincoln
3. Session-chair: 12th Joint MMM/INTERMAG Conference, 2013
4. Session-chair: 62nd MMM Conference, 2017
5. Member-Local Arrangement Committee- SDAS, 103rd Annual Meeting, 2018

RESEARCH SPECIALITIES

1. **Materials Growth:** Sputtering, E-beam evaporation, MOD/ Sol-gel technique, Arc-melting and Melt-spinning techniques, Co-precipitation method and Cluster deposition
2. **Materials characterization:** Quantum Design SQUID Magnetometer, Quantum Design Physical Properties Measurement System (PPMS), Vibrating Sample Magnetometer, Rigaku X-ray Diffractometer, UV/VIS/NIR Spectrometer, Raman Spectrometer, Hitachi S-2400 SEM, JEM-2010 TEM

RESEARCH FUNDING

1. SDSU, Scholarly Excellence for Dissemination, (2013-2014).
2. NSF, Materials Research Science and Engineering Center (MRSEC), (2014-2015). (Summer Research Support - Faculty student pair)
3. SDSU, Scholarly Excellence for Dissemination, (2014-2015).
4. SDSU, Academic and Scholarly Excellence Funds (2014-2015).
5. ARO (Army Research Office) Summer Research Support, Nebraska Center for Materials and Nanoscience, University of Nebraska, Lincoln (2015-2016).
6. SDSU, Scholarly Excellence for Dissemination (2015-2016).
7. SDSU, Scholarly Excellence Funds (2015-2016).
8. SDSU, Research and Scholarship fund (2016-2017).

9. SDSU, Scholarly Excellence for Dissemination (2016-2017).
10. NSF-NNCI funded Nebraska Nanoscale Facility (NNF), Professor/Student Pair Summer Research program (2016-2017).
11. Technical Support: NSF MRI (2014-2017).
12. NSF-NNCI funded Nebraska Nanoscale Facility (NNF), Professor/Student Pair Summer Research program (2017-2018).
13. SDSU, Scholarly Excellence Funds (2017-2018).
14. SDSU, Scholarly Excellence for Dissemination (2017-2018).
15. NSF-NNCI funded Nebraska Nanoscale Facility (NNF), Professor/Student Pair Summer Research program (2018-2019).

GRADUATE RESEARCH SUPERVISION AT SDSU

Name	Faculty Role	Degree	Major	Dates Supervised	Current Placement /Graduated from
Nirmal Adhikari	Committee Member	PhD	Electrical Engineering	2014-2016 Graduated in 2016 summer	Dr. Qiao's research group
Baibhav Ghimire	Committee Member	MS	Electrical Engineering	Graduated in 2014	Dr. Fan's research group
Ishop Amatya	Committee Member/Co-adviser	MS	Electrical Engineering	2014-2015 Graduated in spring 2015	Dr. Fan's research group
Devendra Khatiwada	Committee member	MS	Electrical Engineering	2014-2015 Graduated in spring 2015	Dr. Qiao's research group
Ezaldeen Adhamash	Committee Member	PhD	Electrical Engineering	2015-Present	Dr. Qiao's research group
Ashim Gurung	Committee Member	PhD	Electrical Engineering	2015-Present Graduated in Summer 2017	Dr. Qiao's research group
Salem Abdulkarim	Committee Member	PhD	Electrical Engineering	2016-Present	Dr. Qiao's research group
Md Faisal Kabir	Committee Member	MS	Electrical Engineering	2016-2017 Graduated in Summer 2017	Dr. Qiao's research group
Raju Ghimire	Committee Member	MS	Electrical Engineering	2015-Present	Dr. Qiao's research group
Utpal Shah	Committee Member	MS	Electrical Engineering	2016-2017 Graduated in Summer 2017	Dr. Qiao's research group
Nezam Uddin	Committee Member	MS	Electrical Engineering	2016-2017 Graduated in Summer 2017	Dr. Yoon's research group
Khan Reza	Committee Member	PhD	Electrical Engineering	2016-Present	Dr. Qiao's research group
Surendra Bajagain	Committee Member	MS	Electrical Engineering	2016-Present Graduated in Summer 2017	Dr. Qiao's research group

Behzad Bahrami	Committee Member	PhD	Electrical Engineering	2016-Present	Dr. Qiao's research group
Veda Varnekar	Committee Member	MS	Electrical Engineering	2017 Graduated in Fall 2017	Dr. Qiao's research group
Shailu Paudyal	Committee Member	MS	Electrical Engineering	2017 Graduated in Fall 2017	Dr. Yoon's research group

GRADUATE FACULTY REPRESENTATIVE AT SDSU

Name	Faculty Role	Degree	Major	Dates of Service	Adviser
Chowdhury Sayef Abdullah	Faculty representative	PhD	Pharmaceutical Sciences	2015	Dr. Omathanu Perumal
John Mills	Faculty representative	MS	Nursing	2015	Dr. Lori Hendrickx
Nashmiah Alhamdawi	Faculty representative	MS	Computer Science	2017	Dr. Yi Liu
Ahmed El-Magrous	Faculty Representative	PhD	Electrical Engineering	2018-	Dr. Qiao
Karly Ackermann	Faculty Representative	PhD	Biological Sciences	2017-	Dr. Hoskinson

UNDERGRADUATE RESEARCH SUPERVISION AT SDSU (PHYS 498)

Name	Faculty Role	Major	Minor	Dates Supervised	Graduation
Austin Nelson	Research Mentor	Physics		Spring 2014 Fall 2014	2014
Jacob Guenther	Research Mentor	Physics		Spring 2014, Fall 2014 Spring 2015	2016
Ryan Fuglsby	Major Research Adviser	Physics		Summer 2014-Spring 2015	2015
Simeon Gilbert	Major Research Adviser	Physics		Fall 2014 Spring 2015	2015
Hora Mishra	Major Research Adviser	Physics		Spring 2015	2015
Hima Mishra	Major Research Adviser	Physics		Fall 2015	
Mukesh Mithrakumar	Major Research Adviser	Physics, EE		Fall 2015-Fall 2016	2018
Sanmati Jain	Research Mentor	EE		Spring 2016	
Swarangi Joshi	Research Mentor	Computer Science		Spring 2016	
Ojas Pathak	Research Mentor	Computer Science		Spring 2016	
Basanta Bhusal	Major Research Adviser	ME	Physics	Spring 2016-Spring 2017	

Jace Waybright	Major Research Adviser	Physics		Summer 2016-Present	
Kyle Schroeder	Major Research Adviser	Physics		Summer 2017-Spring 2018	2018
Lee Halbritter	Major Research Adviser	Physics		Fall 2017-Present	
Carter Huber	Major Research Adviser	Physics		Fall 2017-Present	
Thomas Ott	Major Research Adviser	Physics		Summer 2018-	

VISITING SCHOLAR MENTORING AT SDSU

Name	Faculty Role	Visitor's Title	Project	Dates Supervised	Current Address
Ke Yang	Research Mentor	Associate Professor	Investigating novel magnetic nanostructures	11/2014-11/2015	College of Mechanical and Electrical Engineering, Hohai University,China
Hanyang Qian	Research Adviser	Graduate Researcher	Magnetocaloric materials	09/2017-	Changzhou University, China

POSTDOC. MENTORING AT SDSU

Name	Faculty Role	Project	Dates Supervised	Current Address
Bishnu Dahal	Research Adviser	Investigating novel magnetic nanostructures for energy applications	01/2018-Present	Department of Physics, SDSU

COURSES TAUGHT AT SDSU

Phys 498	Undergraduate Research/Scholarship-EXPL
Phys 491	Ind Study/Seminar-EXPL
Phys 318	Advanced Lab I
Phys 316-316L	Measurement Theory and Experiment Design and Lab
Phys 213	University Physics II
Phys 211	University Physics I
Phys 113	Introduction to Physics II

PROFESSIONAL SOCIETY MEMBERSHIP

1. American Physical Society
2. South Dakota Academy of Sciences
3. Nepal Physical Society (Life member)

CURRENT EXTERNAL COLLABORATIONS

Prof. Pavel Lukashev (University of Northern Iowa), Prof. Ralph Skomski (University of Nebraska, Lincoln), Prof. Arti Kashyap (Indian Institute of Technology, Mandi, India), Prof. Tingyong Chen, Arizona State University

ADVISERS

Graduate Adviser: Prof. Gavin Lawes (Wayne State University, MI)
Postdoctoral Adviser: Prof. David J Sellmyer (University of Nebraska, NE)