Madhab Neupane

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(a) Professional Preparation

A list of the individual's undergraduate and graduate education and postdoctoral training as indicated below:

Tribhuvan University	Kathmandu, Nepal	Physics	M.Sc. (2001)
Boston College	Boston, MA, USA	Physics	Ph.D. (2010)
Princeton University	Princeton, NJ, USA	Physics	Postdoc Fellow (2011-2014)

(b) Appointments

2020-current Associate Professor of Physics, University of Central Florida, Orlando, FL, USA 2016-2019 Assistant Professor of Physics, University of Central Florida, Orlando, FL, USA
2015 Director's Fellow, Los Alamos National Laboratory, Los Alamos, NM, USA
2011-2014 Postdoctoral Fellow, Princeton University, Princeton, NJ, USA

(c) Publications

(i) List up to five (5) publications/products that are the **most current** ones related to your field

1. Yangyang Liu, Gyanendra Dhakal, Anup Pradhan Sakhya, John E. Beetar, Firoza Kabir, Sabin Regmi, Dariusz Kaczorowski, Michael Chini, Benjamin M. Fregoso, and **Madhab Neupane**, Ultrafast relaxation of acoustic and optical phonons in a topological nodal-line semimetal ZrSiS, Communications Physics 5, 203 (2022).
2, Sabin Regmi, Tharindu Fernando, Yuzhou Zhao, Anup Pradhan Sakhya, Gyanendra Dhakal, Iftakhar Bin Elius, Hector Vazquez, Jonathan D Denlinger, Jihui Yang, Jiun-Haw Chu, Xiaodong Xu, Ting Cao, and **Madhab Neupane,** Spectroscopic evidence of flat bands in breathing kagome semiconductor Nb3I8; Communications Materials, 3, 100 (2022).
3. Benjamin M. Fregoso, **Madhab Neupane**, Anup Pradhan Sakhya, Energy relaxation dynamics in a nodal-line semimetal; Phys. Rev. B 105, 144304 (2022).
4. Anup Pradhan Sakhya, Baokai Wang,, Firoza Kabir, Cheng-Yi Huang, M. Mofazzel Hosen, Bahadur Singh, Sabin Regmi, Gyanendra Dhakal, Klauss Dimitri, Milo Sprague, Robert Smith, Eric D. Bauer, Filip Ronning, Arun Bansil, and **Madhab Neupane,** Complex electronic structure evolution of NdSb across the magnetic transition, Phys. Rev. B 106, 235119, (2022).
5. M. M. Hosen, K. Dimitri, A.K. Nandy, A. Aperis, G. Dhakal, P. Maldonado, F. Kabir, C., Sims, F. Chou, D. Kaczorowski, T. Durakiewicz, P. M. Oppeneer and **M. Neupane**, Distinctmultiple fermionic states in a single topological metal. Nat. Commun. 9, 3002 (2018).

(ii) List up to five (5) other significant publications/products.

1. Firoza Kabir, Randall Filippone, Gyanendra Dhakal, Y. Lee, Narayan Poudel, Jacob Casey, Anup Pradhan Sakhya, Sabin Regmi, Robert Smith, Pietro Manfrinetti, Liqin Ke, Krzysztof Gofryk, **Madhab Neupane,** and Arjun K. Pathak, Unusual magnetic and transport properties in $HoMn_6Sn_6$ kagome magnet, Phys. Rev. Materials 6, 064404 (2022).
2. Sabin Regmi, Gyanendra Dhakal, Fairoja Cheenicode Kabeer, Neil Harrison, Firoza Kabir, Anup Pradhan Sakhya, Krzysztof Gofryk, Dariusz Kaczorowski, Peter M. Oppeneer, and **Madhab Neupane**, Observation of multiple nodal-lines in SmSbTe,, Phys. Rev. Materials 6, L031201 (2022).
3. Firoza Kabir, M. Mofazzel Hosen, Xiaxin Ding, Christopher Lane, Gyanendra Dhakal, Yangyang Liu, Klauss Dimitri, Christopher Sims, Sabin Regmi, Luis Persaud, Yong Liu, Arjun K. Pathak, Jian-Xin Zhu, Krzysztof Gofryk, and **Madhab Neupane**, Effect of dilute magnetism in a topological insulator, Front. Mater. 8:706658 (2021).

4. Gyanendra Dhakal, Fairoja Cheenicode Kabeer, Arjun K. Pathak, Firoza Kabir, Narayan Poudel, Randall Philippone, Jacob Casey, Anup Pradhan Sakhya, Sabin Regmi, Christopher Sims, Klauss Dimitri, Pietro Manfrinetti, Krzysztof Gofryk, , Peter M. Oppeneer, and **Madhab Neupane**, Anisotropically large anomalous and topological Hall effect in a kagome magnet, Phys. Rev. B 104, L161115 (2021).
5. Gyanendra Dhakal, M. Mofazzel Hosen, Wei-Chi Chiu, Bahadur Singh, Cheng-Yi Huang, Klauss Dimitri, Baokai Wang, Firoza Kabir, Christopher Sims, Sabin Regmi, William Neff, Jonathan Denlinger, Hsin Lin, Dariusz Kaczorowski, Arun Bansil, and **Madhab Neupane;** Cleaving plane-dependent electronic structures of transition metal diarsenides, Phys. Rev. Research 3, 023170 (2021).

Acceptable products must be citable and accessible including but not limited to publications, data sets, software, patents, and copyrights.
None

(d) Graduate teaching experience

- List graduate courses taught within the last 7 years, include date (semester and year)
  None

(e) Graduate students mentored (to completion, if applicable)

- List up to 5 most recent- Chair of thesis/dissertation committees, overall number, names of students, degree, year graduated

(1) Mofazzel Hosen, Ph.D. Physics Spring, 2020.
(2) Firoza Kabir, Ph. D. Physics Fall, 2021.
(3) Gyanendra Dhakal, Ph.D. Physics Spring, 2022.
(4) Sabin Regmi, Ph. D. Physics, Fall, 2022.

- List up to 5 most recent- Member of thesis/dissertation committees, overall number, names of students, degree, year graduated

(1) Priyanka Vaidya, Physics, graduated (2) K A M Hasan Siddiquee, Physics, graduated
(3) Shruti Jayaprakash (external member: CREOL), (4) Premadasage Kithsiri Kapila Kumarasinghe (physics), (5) Mahmoud Abdelrahman (external committee member: CREOL)

- List total number of graduate students mentored on thesis/dissertation committees over the course of your career.
  1. Mofazzel Hosen, Ph.D. Physics Spring, 2020; committee chair
  2. Firoza Kabir, Ph. D. Physics Fall, 2021, committee chair
  3. Gyanendra Dhakal, Ph.D. Physics Spring, 2022, committee chair
  4. Sabin Regmi, Ph. D. Physics, Fall, 2022, committee chair
  5. Priyanka Vaidya, Physics, graduated in 2020; committee member
  6. K A M Hasan Siddiquee, Physics, graduated in 2020, committee member

(f) Other synergistic activities related to Graduate Education

• Member of American Physical Society.
• Session chair at APS March Meeting 2019; 2020, 2021, 2022, 2023
• Member of the organizing committee of magnetic frontier quantum technology conference, 2023 and Atto- Conference 2022
• Co-organizer of a focus topic on “Topological Materials: Synthesis, Characterization, and Modeling” for Division of Material Physics, American Physical Society, March Meeting, 2017.
• Referee for Nature and several academic journals
• Proposal reviewer for the National Science Foundation (Condensed Matter Physics), and several other programs.