DANFENG LI
Department of Physics
City University of Hong Kong
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ACADEMIC QUALIFICATIONS

- Ph.D. in Physics, University of Geneva
  Advisor: Prof. Jean-Marc Triscone
  Dissertation: *Electronic Properties of the $LaAlO_3$-$SrTiO_3$ Interfaces and Related Heterostructures*
- M.Phil. in Applied Physics, The Hong Kong Polytechnic University
  Advisor: Prof. Ji-yan Dai
  Thesis: *Pulsed-laser Deposition of Perovskite Polar Oxide Films on $SrTiO_3$ and Study of Interfacial Transport Properties*
- B.Eng. in Materials Science and Engineering, Zhejiang University

PRESENT & PAST ACADEMIC POSITIONS

City University of Hong Kong	Assistant Professor	(starting from 11.2020)
Stanford University	Postdoctoral Fellow (Advisor: Harold Hwang)	(02.2017 – 10.2020)
University of Geneva	Postdoctoral Scholar (Advisor: Jean-Marc Triscone)	(11.2016 – 01.2017)
University of Geneva	Graduate Research Assistant (Advisor: Jean-Marc Triscone)	(04.2011 – 10.2016)
The Hong Kong Polytechnic University	Research Assistant (Advisor: Ji-yan Dai)	(09.2010 – 01.2011)

PREVIOUS RELEVANT RESEARCH WORK

Condensed-matter physics and materials science: Low-dimensional superconductivity; Pulsed-laser deposition; Cuprate/nickelate superconductors; Atomic-scale fabrication of oxide heterostructures and nanomembranes; Oxide interfaces physics; Synthesis of unconventional quantum materials; Novel superconductors by design.

PRIZES & AWARDS

- Finalist of "Falling Walls", *"Falling Walls" Foundation* (2020)
- Early Postdoc.Mobility Fellowship, *Swiss National Science Foundation* (2016)
- Chinese Government Award for Outstanding Self-Financed Chinese Students Abroad, *Chinese Scholarship Council* (2015)
- Finalist of *the 10th "Chuihui Cup" Innovation and Entrepreneurship Competition* (2015)
- Distinguished Graduate from *Zhejiang University* (2008)

PROFESSIONAL ACTIVITIES

- Member of American Physical Society, Materials Research Society, American Chemical Society
- Guest Editor to *Frontiers in Physics*, "*Rare-Earth Nickelates: From Synthesis and Emergent Properties to Potential Applications*"

PUBLICATION RECORDS

*Corresponding author
Part A: (five most representative publications in recent five years)

- **D. Li***, B. Y. Wang*, K. Lee, S. P. Harvey, M. Osada, B. H. Goodge, L. F. Kourkoutis, and H. Y. Hwang*, Superconducting dome in $Nd_{1-x}Sr_xNiO_2$ infinite layer films, *Physical Review Letters* 125, 027001 (2020).
- K. Lee*, B. H. Goodge, **D. Li***, M. Osada, B. Y. Wang, Y. Cui, L. F. Kourkoutis, and H. Y. Hwang, Aspects of the synthesis of thin film superconducting infinite-layer nickelates, *APL Materials* 8, 041107 (2020).
- M. Hepting, **D. Li**, C. J. Jia*, H. Lu, E. Paris, Y. Tseng, X. Feng, M. Osada, E. Been, Y. Hikita, Y.-D. Chuang, Z. Hussain, K. J. Zhou, A. Nag, M. Garcia-Fernandez, M. Rossi, H. Y. Huang, D. J. Huang, Z. X. Shen, T. Schmitt, H. Y. Hwang, B. Moritz, J. Zaanen, T. P. Devereaux, and W. S. Lee*, Electronic structure of the parent compound of superconducting infinite-layer nickelates, *Nature Materials* **19**, 381 (2020).
- **D. Li***, K. Lee, B. Y. Wang, M. Osada, S. Crossley, H.-R. Lee, Y. Cui, Y. Hikita, and H. Y. Hwang*, Superconductivity in an infinite-layer nickelate, *Nature* **572**, 624 (2019).
- **D. Li***, S. Lemal, S. Gariglio, Z. Wu, A. Fête, M. Boselli, Ph. Ghosez, and J.-M. Triscone, Probing quantum confinement and electronic structure at polar oxide interfaces, *Advanced Science* **5**, 1800242 (2018).

Part B: (five most representative publications beyond the recent five-year period)

- I. Pallecchi, F. Telesio, **D. Li**, A. Fête, S. Gariglio, J.-M. Triscone, A. Filippetti, P. Delugas, V. Fiorentini, and D. Marré*, Giant oscillating thermopower at oxide interfaces, *Nature Communications* **6**, 6678 (2015).
- **D. Li***, S. Gariglio, C. Cancellieri, A. Fête, D. Stornaiuolo, and J.-M. Triscone, Fabricating superconducting interfaces between artificially grown $LaAlO_3$ and $SrTiO_3$ thin films, *APL Materials* **2**, 012102 (2014).
- M.-L. Reinle-Schmitt, C. Cancellieri, **D. Li**, D. Fontaine, M. Medarde, E. Pomjakushina, C. W. Schneider, S. Gariglio, Ph. Ghosez, J.-M. Triscone, and P. R. Willmott*, Tunable conductivity threshold at polar oxide interfaces, *Nature Communications* **3**, 932 (2012).
- K. Au, **D. Li**, N.-Y. Chan, and J.-Y. Dai*, Polar liquid molecule induced transport property modulation at $LaAlO_3/SrTiO_3$ heterointerface, *Advanced Materials* **24**, 2598 (2012).
- **D. Li**, Y. Wang, and J.-Y. Dai*, Tunable electronic transport properties of $DyScO_3/SrTiO_3$ polar heterointerface, *Applied Physics Letters* **98**, 122108 (2011).

MEDIA PUBLICITY

Physics: Michael R. Norman, Entering the nickel age of superconductivity, *Physics* **13**, 85 (2020)
Physics Today: (Top 10 most popular articles of 2019) R. Mark Wilson, Superconductivity is found in a nickel oxide, *Physics Today* **72**, 11, 19 (2019).
Phys.org: First report of superconductivity in a nickel oxide material (2019).
Nature News & Views: George A. Sawatzky, Superconductivity seen in a non-magnetic nickel oxide, *Nature* **572**, 592-593 (2019).