Curriculum Vitae

PABLO JARILLO-HERRERO

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EDUCATION

- Aug 01 – Oct 05 Ph.D. in Physics (Cum Laude), Delft Univ. of Technology, The Netherlands. Thesis advisor: Prof. Leo P. Kouwenhoven
- Sep 99 – Jun 01 M.Sc. in Physics, Univ. of California San Diego, USA
- Sep 94 – Jul 99 Licenciado en Ciencias Físicas (B.Sc. in Physics), Univ. of Valencia, Spain

EMPLOYMENT

- Feb 22 – present Distinguished Visiting Professor, ICFO, Spain
- Jul 18 – present Cecil and Ida Green Professor of Physics, Massachusetts Institute of Technology, USA
- Jul 15 – Jun 18 Associate Professor (with tenure) of Physics, Massachusetts Institute of Technology, USA
- Jul 13 – Jul 15 Associate Professor (without tenure) of Physics, Massachusetts Institute of Technology, USA
- Jul 11 – Jul 14 Mitsui Career Development Associate Professor, Massachusetts Institute of Technology, USA
- Jan 08 - Jun 13 Assistant Prof. of Physics, Massachusetts Institute of Technology, USA
- Oct 06 - Dec 07 Nano Research Initiative Fellow, Columbia University, USA
- Oct 05 - Sept 06 Postdoc, Kavli Inst. of Nanoscience, Delft Univ. of Technology, The Netherlands

AWARDS AND HONORS

- 2023 Cherwell-Simons Lecture, Oxford University, UK.
- 2023 Richard E. Prange Prize and Lectureship, Univ. of Maryland.
- 2023 APS Kavli Foundation Symposium Speaker, Las Vegas.
- 2022 Dresselhaus Lecturer, MIT.
- 2022 Max Planck Lecture, MPI for Solid State Physics, Stuttgart, Germany.
- 2022 US National Academy of Sciences (Foreign Member).
- 2022 Dan Maydan Prize in Nanoscience Research, Hebrew University.
- 2022 Hanna Visiting Professor, Stanford University.
- 2022 Ford Lecturer, University of Michigan Ann-Arbor.
- 2021 Pimentel Lecturer, UC Berkeley.
- 2021 National Institute for Materials Science Award, Japan.
- 2021 Max Planck - Humboldt Research Award, Germany.

- 2021 Award for Scientific Discovery, US National Academy of Sciences.
- 2021 Lise Meitner Distinguished Lecture and Medal, Royal Swedish Academy of Sciences.
- 2020 Medal of the Spanish Royal Physics Society.
- 2020 Wolf Prize in Physics, Wolf Foundation.
- 2020 Oliver E. Buckley Condensed Matter Physics Prize Award, American Physical Society
- Moore Foundation Experimental Physics in Quantum Systems Award, 2020.
- CIFAR Quantum Materials Program Fellow, 2019.
- 2018 Breakthrough of the Year Award winner by Physics World for Nature papers on Correlated Insulator behavior and Superconductivity in magic angle graphene, 2018.
- American Physical Society Fellow, 2018.
- Highly Cited Researcher 2017-present (Clarivate Analytics).
- Moore Foundation Experimental Physics in Quantum Systems Award, 2014.
- 2013 Top-Ten Breakthroughs of the Year Award by Physics World for Science paper on Massive Dirac fermions and Hofstadter butterfly physics in graphene, 2013.
- ONR Young Investigator Award, 2013.
- Presidential Early Career Award for Scientists and Engineers (PECASE), 2012.
- APS March Meeting Double Tutorial Speaker (Graphene Tutorial and Topological Insulators Tutorial), 2012.
- DOE Early Career Award, 2011.
- IUPAP Young Scientist Prize in Semiconductor Physics, 2010.
- Packard Fellowship, 2009.
- Alfred P. Sloan Research Fellowship, 2009.
- NSF Career Award, 2008.
- MIT Wade Fund Award, 2008.
- Spanish Royal Physics Society Young Investigator Award, Spain, 2006.
- IUPAP Young Author Best Paper Award, ICPS 2006.
- PhD *Cum Laude*, Delft University of Technology, 2005.
- Distinguished Teaching Assistant, Univ. of California San Diego, 2000.
- Meyer Fellowship, Univ. of California San Diego, 2000.
- Premio Nacional de Terminación de Carrera, 1999 (Top Physics Undergraduate in Spain).
- Premio Comunidad Valenciana, 1999 (Top Undergraduate in the State of Valencia).
- Premio Extraordinario de Licenciatura, University of Valencia, 1999 (Top Physics Undergraduate 1994-99).
- Beca de Colaboración, University of Valencia, 1998 (Spanish National Student Fellowship).
- Bronze Medal, National Physics Olympiads, Spain, 1994.

PUBLICATIONS

Summary: over 150 publications, including 20 in *Nature*, 9 in *Science*, 16 in *Nature Physics,* 12 in *Nature Nanotechnology*, 4 in *Nature Materials*, 1 in *Nature Chemistry*, 5 in *Nature Communications*, and 18 in *Phys. Rev. Lett.* Google-Scholar: H-index: 91. #Papers>1,000 citations:11; #Papers>100 citations: 85. Total citations: ~47,000. #Citations in 2019: ~5,100; #Citations in 2020: ~6,700; #Citations in 2021: ~8,100. #Citations in 2022: ~9,300.

Selected Publications

1. A. Mercurio, G.M. Andolina, F. Pellegrino, O.D. Stefano, P. Jarillo-Herrero, C. Felser, F.H.L. Koppens, S. Savasta, M. Polini, *"Photon condensation, Van Vleck paramagnetism, and chiral cavities"*.
   arXiv:2302.09964 (2023).
2. A. Uri, S.C. de la Barrera, M.T. Randeria, D. Rodan-Legrain, T. Devakul, P.J.D. Crowley, N. Paul, K. Watanabe, T. Taniguchi, R. Lifshitz, L. Fu, R.C. Ashoori, P. Jarillo-Herrero, *"Superconductivity and strong interactions in a tunable moiré quasiperiodic crystal"*.
   arXiv:2302.00686 (2023).
3. I. Charaev, D.A. Bandurin, A.T. Bollinger, I.Y. Phinney, I. Drozdov, M. Colangelo, B.A. Butters, T. Taniguchi, K. Watanabe, X. He, I. Božović, P. Jarillo-Herrero, K.K. Berggren, *"Single-photon detection using high-temperature superconductors"*.
   arXiv:2208.05674 (2022).
4. M. Polini, F. Giazotto, K.C. Fong, I.M. Pop, C. Schuck, T. Boccali, G. Signorelli, M. D'Elia, R.H. Hadfield, V. Giovannetti, D. Rossini, A. Tredicucci, D.K. Efetov, F.H.L. Koppens, P. Jarillo-Herrero, A. Grassellino, D. Pisignano, *"Materials and devices for fundamental quantum science and quantum technologies"*.
   arXiv:2201.09260 (2022).
5. D.R. Klein†, L-Q. Xia, D. MacNeill, K. Watanabe, T. Taniguchi, P. Jarillo-Herrero†, *"Electrical switching of a bistable moiré superconductor"*. †: corresponding authors.
   Nature Nanotechnology (2023). https://doi.org/10.1038/s41565-022-01314-x
6. D.A. Bandurin†, A. Principi†, I.Y. Phinney, T. Taniguchi, K. Watanabe, P. Jarillo-Herrero†, *"Interlayer electron-hole friction in tunable twisted bilayer graphene semimetal"*. †: corresponding authors.
   Physical Review Letters **129**, 206802 (2022).
7. J.M. Park+, Y. Cao+, L. Xia, S. Sun, K. Watanabe, T. Taniguchi, and P. Jarillo-Herrero, *"Robust superconductivity in magic-angle multilayer graphene family"*. +: Equal contributing authors.
   Nature Materials **21**, 877 (2022).
8. S.C. de la Barrera+, S. Aronson+, Z. Zheng, K. Watanabe, T. Taniguchi, Q. Ma, P. Jarillo-Herrero†, R. Ashoori†, *"Cascade of isospin phase transitions in Bernal bilayer graphene at zero magnetic field"*. +: Equal contributing authors. †: corresponding authors.
   Nature Physics **18**, 771 (2022).
9. D.A. Bandurin, E. Mönch, K. Kapralov, I.Y. Phinney, K. Lindner, S. Liu, J.H. Edgar, I.A. Dmitriev, P. Jarillo-Herrero, D. Svintsov, S.D. Ganichev, *"Cyclotron resonance overtones and near-field magnetoabsorption via terahertz Bernstein modes in graphene"*.
   Nature Physics **18**, 462 (2022).
10. J.I.J. Wang†, M.A. Yamoah, Q. Li, A.H. Karamlou, T.D., B. Kannan, J. Braumueller, D. Kim, A.J. Melville, S.E. Muschinske, B.M. Niedzielski, K. Serniak, Y. Sung, R. Winik, J.L. Yoder, M.E. Schwartz, K. Watanabe, T. Taniguchi, T.P. Orlando, S. Gustavsson, P. Jarillo-Herrero†, W.D. Oliver†, *"Hexagonal boron nitride as a low-loss dielectric for superconducting quantum circuits and qubits"*. †: corresponding authors.
    Nature Materials **21**, 398 (2022).

11. J. Shen, Z. Zheng, T. Dinh, C. Wang, M. Chen, P. Chen, Q. Ma, P. Jarillo-Herrero, L. Kang, S. Dai, *"Hyperbolic phonon polaritons with positive and negative phase velocities in suspended α-MoO3"*.
Applied Physics Letters **120**, 113101 (2022).

12. B.Q. Lv, A. Zong, D. Wu, A.V. Rozhkov, B.V. Fine, S.-D. Chen, M. Hashimoto, D.-H. Lu, M. Li, Y.-B. Huang, J.P.C. Ruff, D.A. Walko, Z.H. Chen, I. Hwang, Y. Su, X. Shen, X. Wang, F. Han, H.C. Po, Y. Wang, P. Jarillo-Herrero, X. Wang, H. Zhou, C.-J. Sun, H. Wen, Z.-X. Shen, N.L. Wang, and N. Gedik, *"Unconventional hysteretic transition in a charge density wave"*.
Physical Review Letters **128**, 036401 (2022).

13. X. Wang, K. Yasuda, Y. Zhang, S. Liu, K. Watanabe, T. Taniguchi, J. Hone, L. Fu, and P. Jarillo-Herrero, *"Interfacial ferroelectricity in rhombohedral-stacked bilayer transition metal dichalcogenides"*.
Nature Nanotechnology **17**, 367 (2022).

14. J. Duan, F.J. Alfaro-Mozaz, J. Taboada-Gutiérrez, I. Dolado, G. Álvarez-Pérez, E. Titova, A. Bylinkin, A.I.F. Tresguerres-Mata, J. Martín-Sánchez, S. Liu, J.H. Edgar, D.A. Bandurin, P. Jarillo-Herrero, R. Hillenbrand, A.Y. Nikitin, P. Alonso-González, *"Active and Passive Tuning of Ultranarrow Resonances in Polaritonic Nanoantennas"*.
Advanced Materials **34 (10)**, 2104954 (2022).

15. A. Zong, P.E. Dolgirev, A. Kogar, Y. Su, X. Shen, J.A.W. Straquadine, X. Wang, D. Luo, M.E. Kozina, A.H. Reid, R. Li, J. Yang, S.P. Weathersby, S. Park, E.J. Sie, P. Jarillo-Herrero, I.R. Fisher, X. Wang, E. Demler, and Nuh Gedik, *"Role of equilibrium fluctuations in light-induced order"*.
Physical Review Letters **127**, 227401 (2021).

16. Y. Xie+, A.T. Pierce+, J.M. Park+, D.E. Parker, E. Khalaf, P. Ledwith, Y. Cao, S.H. Lee, S. Chen, P.R. Forrester, S. Chen, K. Watanabe, T. Taniguchi, A. Vishwanath, P. Jarillo-Herrero†, A. Yacoby†, *"Fractional Chern insulators in magic-angle twisted bilayer graphene"*. +: Equal contributing authors. †: corresponding authors.
Nature **600**, 439 (2021).

17. I.Y. Phinney, D.A. Bandurin, C. Collignon, I.A. Dmitriev, T. Taniguchi, K. Watanabe, P. Jarillo-Herrero, *"Strong interminivalley scattering in twisted bilayer graphene revealed by high-temperature magnetooscillations"*.
Phys. Rev. Lett. **127**, 056802 (2021).

18. A.T. Pierce+, Y. Xie+, J.M. Park+, E. Khalaf, S.H. Lee, Y. Cao, D.E. Parker, P.R. Forrester, S. Chen, K. Watanabe, T. Taniguchi, A. Vishwanath, P. Jarillo-Herrero†, A. Yacoby†, *"Unconventional sequence of correlated Chern insulators in magic-angle twisted bilayer graphene"*. +: Equal contributing authors. †: corresponding authors.
Nature Physics **17**, 1210 (2021).

19. N.C.H. Hesp+, I. Torre+, D. Rodan-Legrain+, P. Novelli+, Y. Cao, S. Carr, S. Fang, P. Stepanov, D. Barcons-Ruiz, H. Herzig-Sheinfux, K. Watanabe, T. Taniguchi, D.K. Efetov, E. Kaxiras, P. Jarillo-Herrero†, M. Polini†, F.H.L. Koppens†, *"Observation of Interband Collective excitations in twisted bilayer graphene"*. +: Equal contributing authors. †: corresponding authors.

***Nature Physics* 17**, 1162 (2021).

20. E.Y. Andrei†, D.K. Efetov†, P. Jarillo-Herrero†, A.H. MacDonald†, K.F. Mak†, T. Senthil†, E. Tutuc†, A. Yazdani†, A.F. Young†. *"The marvels of moiré materials"*. †: corresponding authors.
***Nature Review Materials* 6**, 201 (2021).

21. Y. Cao+, J.M. Park+, K. Watanabe, T. Taniguchi, and P. Jarillo-Herrero, *"Pauli Limit Violation and Reentrant Superconductivity in Moiré Graphene"*. +: Equal contributing authors.
***Nature* 595**, 526 (2021).

22. Y. Dong, L. Xiong, I.Y. Phinney, Z. Sun, R. Jing, A.S. McLeod, S. Zhang, S. Liu, F.L. Ruta, H. Gao, Z. Dong, R. Pan, J.H. Edgar, P. Jarillo-Herrero, L.S. Levitov, A.J. Millis, M.M. Fogler, D.A. Bandurin, D.N. Basov, *"Fizeau Drag in Graphene Plasmonics"*.
***Nature* 594**, 513 (2021).

23. A. Rozen+, J.M. Park+, U. Zondiner+, Y. Cao+, D. Rodan-Legrain, T. Taniguchi, K. Watanabe, Y. Oreg, A. Stern, E. Berg†, P. Jarillo-Herrero†, S. Ilani†, *"Entropic evidence for a Pomeranchuk effect in magic angle graphene"*. +: Equal contributing authors. †: corresponding authors.
***Nature* 592**, 214 (2021).

24. J.M. Park+, Y. Cao+, K. Watanabe, T. Taniguchi, and P. Jarillo-Herrero, *"Flavour Hund's Coupling, Correlated Chern Gaps, and Diffusivity in Moiré Flat Bands"*. +: Equal contributing authors.
***Nature* 592**, 43 (2021).

25. Y. Cao, D. Rodan-Legrain, J.M. Park, F.N. Yuan, K. Watanabe, T. Taniguchi, R.M. Fernandes, L. Fu, and P. Jarillo-Herrero, *"Nematicity and Competing Orders in Superconducting Magic-Angle Graphene"*.
***Science* 372**, 264 (2021).

26. D. Rodan-Legrain, Y. Cao, J.M. Park, S.C. de la Barrera, M.T. Randeria, K. Watanabe, T. Taniguchi, and P. Jarillo-Herrero, *"Highly Tunable Junctions and Nonlocal Josephson Effect in Magic Angle Graphene Tunneling Devices"*.
***Nature Nanotechnology* 16**, 769 (2021).

27. K. Yasuda, X. Wang, K. Watanabe, T. Taniguchi, and P. Jarillo-Herrero, *"Stacking-Engineered Ferroelectricity in bilayer boron nitride"*.
***Science* 372**, 1458 (2021).

28. J.M. Park+, Y. Cao+, K. Watanabe, T. Taniguchi, and P. Jarillo-Herrero, *"Tunable Strongly Coupled Superconductivity in Magic Angle Twisted Trilayer Graphene"*. +: Equal contributing authors.
***Nature* 590**, 249 (2021).

29. Z. Zheng+, Q. Ma+†, Z. Bi, S. de la Barrera, M-H. Liu, N. Mao, Y. Zhang, N. Kiper, K. Watanabe, T. Taniguchi, J. Kong, W.A. Tisdale, R. Ashoori, N. Gedik, L. Fu, S-Y. Xu, P. Jarillo-Herrero†, *"Unconventional ferroelectricity in moiré heterostructures"*. +: Equal contributing authors. †: corresponding authors.
***Nature* 588**, 71 (2020).

30. B. Huang, M.A McGuire, A.F. May, D. Xiao, P. Jarillo-Herrero, and X. Xu, *"Emergent phenomena and proximity effects in two-dimensional magnets and heterostructures"*. ***Nature Materials*** **19**, 1276 (2020).

31. M. Chen, X. Lin, T.H. Dinh, Z. Zheng, J. Shen, Q. Ma, H. Chen, P. Jarillo-Herrero, and S. Dai, *"Configurable phonon polaritons in twisted α-MoO_3"*. ***Nature Materials*** **19**, 1307 (2020).

32. Y. Cao, D. Rodan-Legrain, O. Rubies-Bigordà, J.M. Park, K. Watanabe, T. Taniguchi, and P. Jarillo-Herrero, *"Tunable correlated states and spin-polarized phases in twisted bilayer–bilayer graphene"*. ***Nature*** **583**, 215 (2020).

33. U. Zondiner+, A. Rozen+, D. Rodan-Legrain+, Y. Cao, R. Queiroz, T. Taniguchi, K. Watanabe, Y. Oreg, F. von Oppen, A. Stern, E. Berg, P. Jarillo-Herrero†, and S. Ilani†, *"Cascade of Phase Transitions and Dirac Revivals in Magic Angle Graphene"*. +: Equal contributing authors. †: corresponding authors. ***Nature*** **582**, 203 (2020).

34. A. Uri+, S. Grover+, Y. Cao+, J.A. Crosse, K. Bagani, D. Rodan-Legrain, Y. Myasoedov, K. Watanabe, T. Taniguchi, P. Moon, M. Koshino, P. Jarillo-Herrero†, and E. Zeldov†, *"Mapping the twist angle and unconventional Landau levels in magic angle graphene"*. +: Equal contributing authors. †: corresponding authors. ***Nature*** **581**, 47 (2020).

35. S-Y. Xu+, Q. Ma+, Y. Gao+, A. Kogar, G. Zong, A.M. Mier Valdivia, T.H. Dinh, S-M. Huang, B. Singh, C-H. Hsu, T-R. Chang, J.P.C. Ruff, K. Watanabe, T. Taniguchi, H. Lin, G. Karapetrov, D. Xiao, P. Jarillo-Herrero†, and N. Gedik†, *"Optical detection and manipulation of a spontaneous gyrotropic order in a transition-metal dichalcogenide semimetal"*. +: Equal contributing authors. †: corresponding authors. ***Nature*** **578**, 545 (2020).

36. B. Han+, Y. Lin+, Y. Yang+, N. Mao, W. Li, H. Wang, K. Yasuda, X. Wang, V. Fatemi, L. Zhou, J.I-J. Wang, Q. Ma, Y. Cao, D. Rodan-Legrain, Y-Q. Bie, E. Navarro-Moratalla, D. Klein, D. MacNeill, S. Wu, , H. Kitadai, X. Ling, P. Jarillo-Herrero†, J. Kong†, J. Yin†, and T. Palacios†, *"Deep Learning Enabled Fast Optical Characterization of Two-Dimensional Materials"*. +: Equal contributing authors. †: corresponding authors. ***Advanced Materials*** **32**, 2000953 (2020).

37. E. Mönch, D.A. Bandurin, I.A. Dmitriev, I.Y. Phinney, I. Yahniuk, T. Taniguchi, K. Watanabe, P. Jarillo-Herrero, S.D. Ganichev, *"Observation of terahertz-induced magnetooscillations in graphene"*. ***Nano Letters*** **20**, 5943 (2020).

38. A. Kogar, A. Zong, P.E. Dolgirev, X. Shen, J. Straquadine, Y-Q. Bie, X. Wang, T. Rohwer, I-C. Tung, Y. Yang, R. Li, J. Yang, S. Weathersby, S. Park, M.E. Kozina, E.J. Sie, H. Wen, P. Jarillo-Herrero, I.R. Fisher, X. Wang, and Nuh Gedik, *"Light-Induced Charge Density Wave in $LaTe_3$"*. ***Nature Physics*** **16**, 159 (2020).

39. Y. Cao, D. Chowdhury, D. Rodan-Legrain, O. Rubies-Bigordà, K. Watanabe, T. Taniguchi, T. Senthil†, and P. Jarillo-Herrero†, *"Strange metal in magic-angle graphene with near Planckian dissipation"*. †: corresponding authors.
Phys. Rev. Lett. **124**, 076801 (2020).

40. D. MacNeill, J.T. Hou, D.R. Klein, P. Zhang, P. Jarillo-Herrero, and L. Liu, *"Gigahertz frequency antiferromagnetic resonance and strong magnon-magnon coupling in the layered crystal CrCl3"*.
Phys. Rev. Lett. **123**, 170204 (2019).

41. D.R. Klein, D. MacNeill, Q. Song, D.T. Larson, S. Fang, M. Xu, R.A. Ribeiro, P.C. Canfield, Efthimios Kaxiras, R. Comin, and P. Jarillo-Herrero, *"Enhancement of interlayer exchange in an ultrathin 2D magnet"*.
Nature Physics **15**, 1255 (2019).

42. A. Zong, P.E. Dolgirev, A. Kogar, E. Ergecen, M.B. Yilmaz, Y.Q. Bie, T. Rohwer, I.C. Tung, J. Straquadine, X.R. Wang, Y.F. Yang, X.Z. Shen, R.K. Li, J. Yang, S. Park, M.C. Hoffmann, B.K. Ofori-Okai, M.E. Kozina, H.D. Wen, X.J. Wang, I.R. Fisher, P. Jarillo-Herrero, and N. Gedik, *"Dynamical Slowing-Down in an Ultrafast Photoinduced Phase Transition"*.
Phys. Rev. Lett. **123**, 097601 (2019).

43. S.L. Tomarken, Y. Cao, A. Demir, T. Taniguchi, K. Watanabe, P. Jarillo-Herrero, and R.C. Ashoori, *"Electronic compressibility of magic angle graphene superlattices"*.
Phys. Rev. Lett. **123**, 046601 (2019).

44. S.Y. Dai, W.J. Fang, N. Rivera, Y. Stehle, B.Y. Jiang, J.L. Shen, R.Y. Tay, C. Ciccarino, Q. Ma, D. Rodan-Legrain, P. Jarillo-Herrero, E.H.T. Teo, M.M. Fogler, P. Narang, J. Kong, D.N. Basov, *"Phonon Polaritons in Monolayers of Hexagonal Boron Nitride"*.
Advanced Materials **31**, 1806603 (2019).

45. Y.H. Zhang, D. Mao, Y. Cao, P. Jarillo-Herrero, and T. Senthil *"Nearly flat Chern bands in moiré superlattices"*.
Phys. Rev. B **99** (7), 075127 (2019).

46. Y.X. Lin, Q. Ma, P.C. Shen, B. Ilyas, Y.Q. Bie, A. Liao, E. Ergecen, B.N. Han, N.N. Mao, X. Zhang, X. Ji, Y.H. Zhang, J.H. Yin, S.X. Huang, M.S. Dresselhaus, N. Gedik, P. Jarillo-Herrero, X. Ling, J. Kong, and T. Palacios, *"Asymmetric hot-carrier thermalization and broadband photoresponse in graphene-2D semiconductor lateral heterojunctions"*.
Science Advances **5**, eaav1493 (2019).

47. S.Y. Dai, J.W. Zhang, Q. Ma, S. Kittiwatanakul, A. McLeod, X.Z. Chen, S.G. Corder, K. Watanabe, T. Taniguchi, J.W. Lu, Q. Dai, P. Jarillo-Herrero, M.K. Liu, D.N. Basov, *"Phase-Change Hyperbolic Heterostructures for Nanopolaritonics: A Case Study of hBN/VO_2"*.
Advanced Materials **31**, 1900251 (2019).

48. M. Yankowitz, Q. Ma, P. Jarillo-Herrero, and B.J. LeRoy, *"Van der Waals heterostructures combining graphene and hexagonal boron nitride"*.
Nature Reviews Physics **1**, 112 (2019).

49. J.I-J. Wang+, D. Rodan-Legrain+, L. Bretheau, D.L. Campbell, B. Kannan, D. Kim, M. Kjaergaard, P. Krantz, G.O. Samach, F. Yan, J.L. Yoder, K. Watanabe, T. Taniguchi, T.P.

Orlando, S. Gustavsson, P. Jarillo-Herrero† and W.D. Oliver†, *"Coherent control of a hybrid superconducting circuit made with graphene-based van der Waals heterostructures"*. +: Equal contributing authors. †: corresponding authors.
Nature Nanotechnology **14**, 120 (2019).

50. Q. Ma[+], S-Y. Xu[+], H. Shen[+], D. MacNeill, V. Fatemi, A.M. Mier Valdivia, S. Wu, T-R. Chang, G. Chang, Z. Du, C-H. Hsu, Q.D. Gibson, S. Fang, E. Kaxiras, K. Watanabe, T. Taniguchi, R.J. Cava, H-Z. Lu, H. Lin, L. Fu, N. Gedik†, and P. Jarillo-Herrero†, "*Observation of the nonlinear Hall effect under time reversal symmetric conditions"*. +: Equal contributing authors. †: corresponding authors.
Nature **565**, 337 (2019).

51. A. Zong, A. Kogar, Y-Q Bye, T. Rohwer, C. Lee, E. Baldini, E. Ergecen, M.B. Yilmaz, B. Freelon, E.J. Sie, H.Y. Zhou, J. Straquadine, P. Walmsley, P.E. Dolgirev, A.V. Rozhkov, I.R. Fisher, P. Jarillo-Herrero, B.V. Fine, and N. Gedik, "*Evidence for topological defects in a photoinduced phase transition"*.
Nature Physics **15**, 27 (2019).

52. Q. Ma, C.H. Lui, J.C.W. Song, Y.X. Lin, J.F. Kong, Y. Cao, T.H. Dinh, N.L. Nair, W.J. Fang, K. Watanabe, T. Taniguchi, S.Y. Xu, J. Kong, T. Palacios, N. Gedik, N.M. Gabor†, and P. Jarillo-Herrero†, "*Giant intrinsic photoresponse in pristine graphene"*. +: Equal contributing authors. †: corresponding authors.
Nature Nanotechnology **14**, 145 (2019).

53. V. Fatemi[+], S. Wu[+], Y. Cao, L. Bretheau, Q. D. Gibson, K. Watanabe, T. Taniguchi, R. J. Cava, and P. Jarillo-Herrero, *"Electrically Tunable Low Density Superconductivity in a Monolayer Topological Insulator"*. +: Equal contributing authors.
Science **362**, 926 (2018).

54. J.I-J. Wang[+], L. Bretheau[+], D. Rodan-Legrain, R. Pisoni, K. Watanabe, T. Taniguchi, and P. Jarillo-Herrero. *"Tunneling spectroscopy of graphene nanodevices coupled to large-gap superconductors"*.+: Equal contributing authors.
Phys. Rev. B **98**, 121411(R) (2018).

55. S-Y. Xu[+], Q. Ma[+], H. Shen, V. Fatemi, S. Wu, T-R. Chang, G. Chang, A.M. Mier Valdivia, C-K. Chan, Q.D. Gibson, J. Zhou, Z. Liu, K. Watanabe, T. Taniguchi, H. Lin, N. Gedik†, and P. Jarillo-Herrero†, *"Electrically switchable Berry curvature dipole in the monolayer topological insulator WTe_2"*. +: Equal contributing authors. †: corresponding authors.
Nature Physics **14**, 900 (2018)

56. S. Carr, S. Fang, P. Jarillo-Herrero, and E. Kaxiras, *"Pressure dependence of the magic twist angle in graphene superlattices"*.
Phys. Rev. B 98, 085144 (2018)

57. D.R. Klein, D. MacNeill, J.L. Lado, D. Soriano, E. Navarro-Moratalla, K. Watanabe, T. Taniguchi, S. Manni, P. Canfield, J. Fernández-Rossier, and P. Jarillo-Herrero. *"Probing magnetism in 2D van der Waals crystalline insulators via electron tunneling"*.
Science **360**, 1218 (2018)

58. B. Huang[+], G. Clark[+], D.R. Klein[+], D. MacNeill, E. Navarro-Moratalla, K.L. Seyler, N. Wilson, M.A. McGuire, D.H. Cobden, D. Xiao, W. Yao, P. Jarillo-Herrero†, and X. Xu†.

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INVITED TALKS AT INTERNATIONAL CONFERENCES

Summary: over 260 plenary/invited talks, lectures, seminars and colloquia at international conferences (APS, DPG, GRC, ICPS, M2S, etc), and many of the top institutions in the world, including Berkeley, UC-Boulder, Caltech, Cambridge, Chicago, Columbia, Copenhagen, Cornell, CSIC, Delft, ETH-Zurich, Harvard, ICFO, UAM, UCM, Maryland, Max Planck Society, Michigan-Ann Arbor, Minnesota, MIT, Munich, Peking U., U.Penn, Penn State, Princeton, Regensburg, UC Santa Barbara, UC San Diego, Stanford, Tokyo, Toronto, Tsinghua, Vienna, U. Washington, Yale, etc.

1. ***Magic-Angle Multilayer Graphene: A Robust Family of Moiré Superconductors***
   Moore Foundation – Japanese Topological Society Meeting, French Polynesia, Oct 2022.
2. ***The Magic of Moiré Quantum Matter***
   Plenary Talk, LT29, Sapporo, Japan, Aug 2022.
3. ***The Magic of Moiré Quantum Matter***
   Plenary Talk, M2S, Vancouver, Canada, Jul 2022.
4. ***The Magic of Moiré Quantum Matter***
   Plenary Talk, Bienal RSEF, Murcia, Spain, Jul 2022.
5. ***The Magic of Moiré Quantum Matter***
   Plenary Talk, Graphene 2022, Aachen, Germany, Jul 2022.
6. ***The Magic of Moiré Quantum Matter***
   MRS Spring Meeting, Honolulu, USA, May 2022.
7. ***The Magic of Moiré Quantum Matter***
   Plenary Talk at ISNTT2021, Tokyo, Japan, Nov 2021.
8. ***The Magic of Moiré Quantum Matter***
   Lecture for NIMS Award Ceremony, NIMS, Japan, Nov 2021.

9. ***The Magic of Moiré Quantum Matter***
   Lecture for Nature Nanotechnology's 15th year anniversary, Nov 2021.
10. ***The Magic of Moiré Quantum Matter***
    Plenary talk at EP2DS2021, Toyama, Japan, Oct 2021.
11. ***The Magic of Moiré Quantum Matter***
    Plenary talk at NanoIsrael 2021, Jerusalem, Israel, Sep 2021.
12. ***The Magic of Moiré Quantum Matter* (3 lectures)**
    Topological Matter School, San Sebastian, Spain, Aug 2021.
13. ***Strange Metal in Magic Angle Graphene***
    Strange Metals Workshop, UI Urbana-Champaign, USA, Jul 2021.
14. ***Moiré Magic 3.0***
    Topologica Matter Conference, ICN, Spain, Jun 2021.
15. ***Moiré Magic 3.0***
    Maryland Janet Das Sarma Workshop, Maryland, Jun 2021.
16. ***Moiré Magic 3.0***
    Princeton Condensed Matter Physics Summer School, Princeton, Jun 2021.
17. ***Moiré Magic 3.0***
    Vortex2021, Kanpur, India, Jun 2021.
18. ***The Magic of Moiré Quantum Matter***
    NAS Workshop on Frontiers of Synthetic Moiré Quantum Matter, May 2021.
19. ***Moiré Magic 3.0***
    Quantum Materials Canada, Mar 2021.
20. ***Moiré Magic 3.0***
    ICFO-IMPRS School, Barcelona, Spain, Mar 2021.
21. ***The Magic of Moiré Quantum Matter***
    Oliver E. Buckley Prize Talk, APS March Meeting, Nashville, USA, Mar 2021.
22. ***Moiré Magic 3.0***
    APS March Meeting, Nashville, USA, Mar 2021.
23. ***The Rise of Moiré Quantum Matter***
    NSF Future of Semiconductors Workshop, Washington DC, USA, Mar 2021.
24. ***Moiré Magic 3.0***
    QMS2021, Seoul, South Korea, Feb 2021.
25. ***Moiré Magic 3.0***
    Correlated Systems with Multicomponent Local Hilbert Spaces, KITP, USA, Dec 2020.
26. ***Transport & Thermodynamic Measurements of Magic Angle Graphene & Beyond***
    Workshop on Correlated Electronic States in 2D Systems, Cambridge, USA, Oct 2020.
27. ***Magic Angle Graphene: correlations, superconductivity and beyond***
    Plenary talk at Graphene2020, Grenoble, France, Oct 2020.
28. ***Magic Angle Graphene: correlations, superconductivity and beyond***
    Plenary talk at Tnano20, Tbilisi, Georgia, Oct 2020.
29. ***Magic Angle Graphene: correlations, superconductivity and beyond***
    Plenary talk at CMD2020GEFES, Madrid, Spain, Sep 2020.
30. ***Competing Orders, Nematicity, and Phase Transitions in Magic-Angle Graphene***
    Online school on Ultra Quantum Matter, Perimeter Institute, Canada, Aug 2020.
31. ***Competing Orders, Nematicity, and Phase Transitions in Magic-Angle Graphene***
    KITP workshop - Intertwined orders and fluctuations in quantum materials, KITP, Jul 2020.

32. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Les Houches Summer School (2 lectures), Switzerland, Jul 2020.
33. ***Magic Angle Graphene: correlations, superconductivity and beyond***
IFCO Summer School - Emergent phenomena in moiré materials, Barcelona, Spain Jul 2020.
34. ***Magic Angle Graphene: correlations, superconductivity and beyond***
Flatiron Institute – CIFAR workshop on Quantum Materials, New York, USA, Feb 2020.
35. ***Magic Angle Graphene: correlations, superconductivity and beyond***
MRS Meeting, Boston, USA, Dec 2019.
36. ***Magic Angle Graphene: the Twist and Shout of Quantum Materials***
Future of Science Prize Symposium, Beijing, China, Nov 2019.
37. ***Magic Angle Graphene: correlations, superconductivity and beyond***
Nature Conference on 2D Materials, Xi'an, China, Nov 2019.
38. ***Magic Angle Graphene: correlations, superconductivity and beyond***
CIFAR Workshop, Montreal, Canada, Nov 2019.
39. ***Magic Angle Graphene: correlations, superconductivity and beyond***
Unconventional Superconductors and Spin Liquids, Ringberg, Germany, Oct 2019.
40. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Nicolas Cabrera Summer School, Madrid, Spain, Sep 2019.
41. ***Topology, Correlations, and Superconductivity in 2D***
Topological Matter School (3 Lectures), San Sebastian, Spain, Aug 2019.
42. ***Magic Angle Graphene: correlations, superconductivity and beyond***
Moore Foundation Workshop, San Francisco, USA, Aug 2019.
43. ***Magic Angle Graphene: correlations, superconductivity and beyond***
Aspen Conference on Correlated Moiré Systems, Aspen, USA, Jul 2019.
44. ***Magic Angle Graphene: correlations, superconductivity and beyond***
Graphene 2019, Rome, Italy, Jun 2019.
45. ***Magic Angle Graphene: correlations, superconductivity and beyond***
Gordon Research Conference on Topological and Correlated Systems, Hong Kong, Jun 2019.
46. ***Correlations and superconductivity in Magic Angle Graphene***
2D Med workshop, Valencia, Spain, Jun 2019.
47. ***Correlations and superconductivity in Magic Angle Graphene***
Moiré in Paris, Paris, France, Jun 2019.
48. ***Correlations and superconductivity in Magic Angle Graphene***
Brookhaven 2D Materials Workshop, Brookhaven, USA, May 2019.
49. ***Correlations and superconductivity in Magic Angle Graphene***
Gordon Research Conference on Superconductivity, Les Diablerets, Switzerland, May 2019.
50. ***Correlations and superconductivity in Magic Angle Graphene***
Strongly Correlated Systems & Interactions in Quantum Matter, Princeton, USA, Apr 2019.
51. ***Topology, Correlations, and Superconductivity in 2D***
CIFAR Summer School (2 Lectures), UBC, Vancouver, Canada, Apr 2019.
52. ***Magic Angle Graphene: correlations and superconductivity***
Strongly Correlated Systems and Interactions in Quantum Matter, Princeton, USA, Apr 2019.
53. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
DPG Meeting, Regensburg, Germany, Apr 2019.
54. ***Magic Angle Graphene Transport Phenomenology***
KITP Workshop on Moiré Heterostructures, Santa Barbara, USA, Jan 2019.

55. ***Magic Angle Graphene: Correlations, Superconductivity & Beyond***
AharonFest, Stanford, USA, Sep 2018.
56. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Graphene Week, San Sebastian, Spain, Sep 2018.
57. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Simons Foundation MPS Conf. on Ultra Quantum Matter II, New York, USA, Aug 2018.
58. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
12th Int. Conf. on Materials and Mechanism of Superconductivity, Beijing, China, Aug 2018.
59. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Quantum Designer Physics, San Sebastian, Spain, Jul 2018.
60. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
ICSSNN 2018, Madrid, Spain, Jul 2018.
61. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Quantum Connections Workshop, Stockholm, Sweden, Jun 2018.
62. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Quantum Complex Matter 2018, Rome, Italy, Jun 2018.
63. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
CIFAR Quantum Materials Meeting, Montreal, Canada, May 2018.
64. ***Topology, Correlations, and Superconductivity in 2D***
Capri Spring School (3 Lectures), Italy, Apr 2018.
65. ***Topology, Correlations, and Superconductivity in 2D***
Cargese Spring School (2 Lectures), Italy, Apr 2018.
66. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
APS March Meeting, Los Angeles, USA, Mar 2018.
67. ***Quantum Transport in Topological Semimetals***
Topological Semimetals and Beyond, Weizmann Institute, Israel, Sep 2017.
68. ***Engineering Topological Physics in van der Waals Heterostructures***
Valleytronics Workshop, Boston, USA, Aug 2017.
69. ***Engineering Topological Physics in van der Waals Heterostructures***
Moore Foundation Meeting, San Francisco, USA, Aug 2017.
70. ***Engineering Topological Physics in van der Waals Heterostructures***
Frontiers in Quantum Materials and Devices Workshop, San Sebastian, Spain, Jul 2017
71. ***Engineering Topological Physics in van der Waals Heterostructures***
Topological matter meets quantum information, Shanghai, China, Jun 2017.
72. ***Engineering Topological Physics in van der Waals Heterostructures***
Modern Trends in Solid State Quantum Physics, Vienna, Austria, Jun 2017.
73. ***Engineering Topological Physics in van der Waals Heterostructures***
Majorana States in Condensed Matter, Mallorca, Spain, May 2017.
74. ***Engineering Topological Physics in van der Waals Heterostructures***
Graphene 2017, Barcelona, Spain, Mar 2017.
75. ***Quantum Transport in van der Waals Heterostructures***
Moore Foundation – Japanese TMS Conference, Moorea, French Polynesia, Dec 2106.
76. ***Quantum Transport in van der Waals Heterostructures***
Boulder Condensed Matter Summer School, Boulder, USA, Jul 2016.
77. ***Quantum Transport in van der Waals Heterostructures***
Gordon Conference on Correlated Electrons, Mount Holyoke, USA, Jun 2016

78. ***Quantum Transport & Optoelectronics with van der Waals heterostructures***
Gordon Conference Beyond Graphene, Mount Holyoke, USA, Jun 2016.
79. ***Quantum Transport in Graphene-based van der Waals Heterostructures***
APS March Meeting, Baltimore, Mar 2016.
80. ***Quantum Science and Technology with Atomically Thin Materials***
ECUSA Meeting, Washington DC, USA, Sep 2015.
81. ***Quantum Transport in van der Waals Heterostructures***
Spintech VIII, Basel, Switzerland, Aug 2015.
82. ***Quantum Transport in van der Waals Heterostructures***
Moore Foundation Meeting, San Francisco, USA, Aug 2015.
83. ***Optoelectronic Response of Graphene/hBN Heterostructures***
Interaction Effects in Graphene and Related Materials, San Sebastian, Spain, Jul 2015.
84. ***Quantum Transport in Twisted van der Waals Heterostructures***
ICPS 2014, Austin, USA, Aug 2014.
85. ***Quantum Transport in Twisted van der Waals Heterostructures***
Gordon Research Conference on Graphitic Carbon Materials, Chemistry and Physics of, Lewiston, USA, Jun 2014.
86. ***Quantum Transport in Twisted van der Waals Heterostructures***
APS March Meeting, Denver, USA, Mar 2014.
87. ***Quantum Transport in Twisted van der Waals Heterostructures***
Quantum Physics Beyond Simple Systems, Simons Foundation Workshop, Puerto Rico, Feb 2014.
88. ***Tunable symmetry breaking and helical edge transport in a graphene quantum spin Hall state***
Topology and Nonequilibrium in Low-Dimensional Electronic Systems, Dresden, Germany, Sep 2013.
89. ***Quantum Transport in Graphene/hBN van der Waals heterostructures***
Rencontres du Vietnam: Nanophysics, Quy Nhon, Vietnam, Aug 2013.
90. ***The versatility of Dirac electrons in graphene***
Plenary Talk at the Biannual Meeting of the Royal Spanish Physics Society, Valencia, Spain, Jul 2013.
91. ***Tuning the Many-Body Ground State of a System of Interacting Dirac Quasiparticles***
ICREA Workshop on Topological Insulators, San Feliu de Guixols, Spain, Jun 2013.
92. ***Quantum Transport in Graphene/hBN heterostructures***
Electron-Electron Interactions in Graphene and Other New 2D Materials, Twin-Cities, USA, May 2013.
93. ***Opto-Electronics and Electron-Optics in Graphene on hBN***
MRS April Meeting, San Francisco, USA, Apr 2013.
94. ***Quantum Transport and Optoelectronics in Graphene on Boron Nitride Devices***
NanoPeter 2012, Saint Petersburg, Russia, Jun 2012.
95. ***Quantum Transport and Optoelectronics in Graphene on Boron Nitride Devices***
Graphene Week, Delft, The Netherlands, Jun 2012.
96. ***Quantum Transport in Graphene on Boron Nitride Devices***
Nonequilibrium Transport in Low-Dimensional Systems, Kfar Blum, Israel, Apr 2012.
97. ***Quantum Transport and Optoelectronics in Graphene on Boron Nitride Devices***

26th International Winterschool on Electronic Properties of Novel Materials, Kirchberg, Austria, Mar 2012.

98. ***Electronic Transport in Topological Insulators***
Invited Tutorial on Topological Insulators at APS March Meeting, Boston, USA, Mar 2012.

99. ***Graphene 1, 2, 3… and A, B, C…***
Invited Tutorial on Graphene at APS March Meeting, Boston, USA, Mar 2012.

100. ***Quantum Transport in Dirac Materials***
APS March Meeting, Boston, USA, Mar 2012.

101. ***Quantum Transport and Optoelectronics in Graphene on Boron Nitride Devices***
Graphene Workshop, KITP Santa Barbara, Jan 2012.

102. ***Electronic Transport in Graphene on Boron Nitride Devices***
Workshop on Quantum Spintronics, Sardinia, Italy, Oct 2011.

103. ***Electronic Transport in Graphene on Boron Nitride Devices***
Recent Progress in Graphene Research, Seoul, South Korea, Oct 2011.

104. ***Electronic Transport in Graphene on Boron Nitride Devices***
ICMAT 2011, Singapore, Jul 2011.

105. ***Electronic Transport in Graphene on Boron Nitride Devices***
Highlights in Quantum Condensed Matter Physics, San Sebastian, Spain, Jun 2011.

106. ***Electronic Transport in Graphene on Boron Nitride Devices***
Graphene 2011, Bilbao, Spain, Apr 2011.

107. ***Electronic Transport in Graphene on Boron Nitride Devices***
Frontiers in Nanoscale Science and Technology Workshop (FNST2011), Tokyo, Japan, Jan 2011.

108. ***Effective Transport gap in Bilayer Graphene***
Electronic Properties of Graphene, Princeton, USA, Oct 2010.

109. ***Electronic Transport in Novel Low Dimensional Conductors***
International Conference Physics Semiconductors (ICPS 2010), Seoul, Korea, Jul 2010.

110. ***Electronic Transport in Bilayer Graphene***
Graphene Satellite Symposium to NT10, Montreal, Canada, Jun 2010.

111. ***Electronic Transport in Graphene Nanostructured Devices***
MRS Spring Meeting, San Francisco, Apr 2010.

112. ***Anisotropic Etching and Crystallographic Nanoribbon Formation in Graphene***
Graphene Meeting, Benasque, Spain, Jul 2009.

113. ***Anisotropic Etching and Crystallographic Nanoribbon Formation in Graphene***
International Workshop on Recent Progress in Graphene Research, Seoul, Korea, Jun 2009.

114. ***Electronic Transport in Graphene Nanostructures***
Asia Nano 2008, Singapore, Nov 2008.

115. ***Electronic Transport in Graphene Nanostructures***
XIX Latin American Symposium on Solid State Physics, Iguazu, Argentina, Oct 2008.

116. ***Electronic Transport in Graphene Nanostructures***
Quantum Coherence and Controllability at the Mesoscale, San Sebastian, Spain, May 2008.

117. ***Superconducting Junctions in Carbon Electronics***
2007 Gordon Research Conference on Superconductivity, Les Diablerets, Switzerland, Sep 2007.

118. ***Local Gate Control of Electronic Transport in Graphene Nanostructures***

International Conference on the Science and Applications of Nanotubes, Ouro Preto, Brazil, Jun 2007.

119. ***Local Gate Control of Electronic Transport in Graphene Nanostructures***
European Materials Research Society Spring Meeting, Strasbourg, France, May 2007.***Electronic Transport in GrapheneNanostructures***
International Winterschool on Electronic Properties of Novel Materials, Kirchberg, Austria, Mar 2007.

121. ***Superconducting Junctions in Graphene***
March meeting of the American Physical Society (APS), Denver, USA, Mar 2007.

122. ***Quantum Supercurrent Transistors in Carbon Nanotubes***
International Conference on the Physics of Semiconductors, ICPS 2006, Vienna, Jul 2006.

123. ***Carbon Nanotubes as Quantum Dots***
Frontiers in Nanoscale Science and Technology, San Francisco, Jan 2006.***Orbital Kondo Effect and Spin Polarization in Carbon Nanotubes.***
March Meeting of the American Physical Society (APS), Los Angeles, USA, Mar 2005.

125. ***Orbital Spectroscopy and Multi-level Kondo Effect in Carbon Nanotubes***
The 28th Fullerene Nanotubes General Symposium, Nagoya, Japan, Jan 2005.

126. ***Few Electron-Hole Carbon Nanotube Quantum Dots.***
International Winterschool on Electronic Properties of Novel Materials, Kirchberg, Austria, Mar 2004.

127. ***Signatures of Mechanical Excitations in Low Temperature Transport in Suspended Carbon Nanotubes***.
International Conference on the Science and Applications of Nanotubes, Seoul, Korea, Jul 2003.

INVITED COLLOQUIA/SEMINARS

1. ***The Magic of Moiré Quantum Matter***
Dresselhaus Lecturer, MIT, USA, Nov 2022.
2. ***The Magic of Moiré Quantum Matter***
Physics Colloquium, University of Pennsylvania, USA, Nov 2022.
3. ***The Magic of Moiré Quantum Matter***
Max Planck – Humboldt Research Award Lecture, Max Planck Society in Berlin, Germany, Nov 2022.
4. ***The Magic of Moiré Quantum Matter***
Max Planck Lecture, MPI Stuttgart, Germany, Nov 2022.
5. ***The Magic of Moiré Quantum Matter***
Distinguished Lecture, KAIST, South Korea, Sep 2022.
6. ***The Magic of Moiré Quantum Matter***
Max Planck Lecture, MPI Stuttgart, Germany, Jul 2022.
7. ***The Magic of Moiré Quantum Matter***
ICFO Summer School Lecture, ICFO, Spain, Jun 2022.
8. ***La Magia de los Materiales Cuánticos de Moiré***
Public Lecture, Ramon Areces Foundation, Spain, Jun 2022.
9. ***The Magic of Moiré Quantum Matter***

Dan Maydan Prize Lecture, Hebrew University, Israel, May 2022.

10. ***Magic-Angle Multilayer Graphene: A Robust Family of Moiré Superconductors***
    Condensed Matter Physics Seminar, Hebrew University, Israel, May 2022.
11. ***The Magic of Moiré Quantum Matter***
    Lise Meitner Distinguished Lecture, Stockholm University, Sweden, Apr 2022.
12. ***The Magic of Moiré Quantum Matter***
    Arab Physical Society Launch, Apr 2022.
13. ***The Magic of Moiré Quantum Matter***
    Ford Lecture, University of Michigan-Ann Arbor, USA, Apr 2022.
14. ***The Magic of Moiré Quantum Matter***
    Physics Colloquium, Brown University, USA, Apr 2022.
15. ***Moiré Quantum Matter vs Other Correlated Systems and Moiré Quantum Matter Beyond Graphene***
    Hanna Lecture 3, Stanford University, USA, Mar 2022.
16. ***Next Generation Moiré Quantum Matter: Moiré 3.0 & Beyond***
    Hanna Lecture 2, Stanford University, USA, Mar 2022.
17. ***Magic Angle Twisted Bilayer Graphene: Basics and Phenomenology***
    Hanna Lecture 1, Stanford University, USA, Feb 2022.
18. ***The Magic of Moiré Quantum Matter***
    Physics Colloquium, Ohio State University, USA, Jan 2022.
19. ***The Magic of Moiré Quantum Matter***
    George Pimentel Lecture, UC Berkeley, USA, Nov 2021.
20. ***The Magic of Moiré Quantum Matter***
    Physics Colloquium, Chalmers University, USA, May 2021.
21. ***The Magic of Moiré Quantum Matter***
    Physics Colloquium, University of Basel, USA, May 2021.
22. ***The Magic of Moiré Quantum Matter***
    Iberian Nanotechnology Laboratory Lecture, Porto, Portugal, Apr 2021.
23. ***Moiré Magic 3.0***
    Frontiers of CMP, Columbia, USA, Apr 2021.
24. ***Moiré Magic 3.0***
    Center for Ultracold Atoms Seminar, MIT-Harvard, USA, Apr 2021.
25. ***The Magic of Moiré Quantum Matter***
    Physics Colloquium, University of Ottawa, USA, Mar 2021.
26. ***Moiré Magic 3.0***
    Condensed Matter Seminar, Univ. Autonoma Madrid, Spain, Mar 2021.
27. ***The Magic of Moiré Quantum Matter***
    Physics Colloquium, Rice University, USA, Mar 2021.
28. ***The Magic of Moiré Quantum Matter***
    Physics Colloquium, California State University, Long Beach, USA, Mar 2021.
29. ***Moiré Magic 3.0***
    CIFAR Quantum Materials Seminar, Canada, Mar 2021.
30. ***The Magic of Moiré Quantum Matter***
    IMPRS-ICFO Workshop, Barcelona, Spain, Mar 2021.
31. ***The Magic of Moiré Quantum Matter***
    Physics Colloquium, Perimeter Institute, Waterloo, Canada, Mar 2021.

32. ***The Magic of Moiré Quantum Matter***
Physics Colloquium, Stanford, USA, Mar 2021.
33. ***Magic Angle Graphene – the Twist and Shout of Quantum Materials***
MIT.nano Seminar, MIT, USA, Feb 2021.
34. ***The Magic of Moiré Quantum Matter***
Physics Colloquium, Oxford University, USA, Feb 2021.
35. ***The Magic of Moiré Quantum Matter***
Physics Colloquium, UCSD, USA, Feb 2021.
36. ***The Magic of Moiré Quantum Matter***
DOD Basic Research Forum, Washington DC, USA, Jan 2021.
37. ***The Magic of Moiré Quantum Matter***
Condensed Matter Seminar, Edinburgh University, UK, Jan 2021.
38. ***The Magic of Moiré Quantum Matter***
Physics Colloquium, Penn State, USA, Jan 2021.
39. ***Moiré Magic 3.0***
Condensed Matter Seminar, University of Bristol, UK, Jan 2021.
40. ***Moiré Magic 3.0***
Chez Pierre Condensed Matter Seminar, MIT, USA, Dec 2020.
41. ***Moiré Magic 3.0***
Condensed Matter Seminar, Stanford, USA, Dec 2020.
42. ***The Magic of Moiré Quantum Matter***
EPFL Physics Colloquium, EPFL, Lausanne, Switzerland, Nov 2020.
43. ***The Magic of Moiré Quantum Matter***
Online Brazil Physics Society Colloquium, Brazil, Nov 2020.
44. ***The Magic of Moiré Quantum Matter***
Online Israel Physics Society Colloquium, Israel, Oct 2020.
45. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Goodenough Materials Lecture, UT Austin, USA, Sep 2020.
46. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
APS Physical Review Colloquium, APS Editors Hedquarters, New York, USA, Apr 2020.
47. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, UCLA, Los Angeles, USA, Feb 2020.
48. ***Magic Angle Graphene: the Twist and Shout of Quantum Materials***
General Talk, Ramon Areces Foundation, Madrid, Spain, Dec 2019.
49. ***Magic Angle Graphene: the Twist and Shout of Quantum Materials***
JASON Defense Group, Washington DC, USA, Dec 2019.
50. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Condensed Matter Seminar, Columbia University, New York, USA, Sep 2019.
51. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Flatiron Quantum Café, New York, USA, Sep 2019.
52. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Condensed Matter Seminar, Universidad Autonoma de Madrid, Madrid, Spain, Sep 2019.
53. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Aspen Physics Colloquium, Aspen, USA, Jul 2019.
54. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, ETH, Switzerland, May 2019.

55. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, UC Boulder, USA, Apr 2019.
56. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Condensed Matter Seminar, Colorado State University, USA, Apr 2019.
57. ***Magic Angle Graphene Transport Phenomenology***
Physics Seminar, Univ. Regensburg, Apr 2019.
58. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, New York University, USA, Feb 2019.
59. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, Berkeley, USA, Feb 2019.
60. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, Boston University, USA, Jan 2019.
61. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, Univ. of Chicago, USA, Jan 2019.
62. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, Harvard, USA, Dec 2018.
63. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, MIT, USA, Nov 2018.
64. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, University of Maryland, USA, Oct 2018.
65. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, Yale, USA, Oct 2018.
66. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
ITAMP Colloquium, Harvard, USA, Oct 2018.
67. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
ICFO Colloquium, ICFO, Barcelona, Spain, Jun 2018
68. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Condensed Matter Seminar, Caltech, USA, May 2018.
69. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Condensed Matter Seminar, Harvard, USA, Apr 2018.
70. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, Univ. of Minnesotta, USA, Apr 2018.
71. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, Princeton, USA, Mar 2018.
72. ***Magic Angle Graphene: a New Platform for Strongly Correlated Physics***
Physics Colloquium, Stanford, USA, Feb 2018.
73. ***Engineering Topological Physics with van der Waals Heterostructures***
NSF Workshop on The Quantum Revolution, Washington DC, May 2017.
74. ***Engineering Topological Physics in Flatland***
QuTech Colloquium, TU Delft, The Netherlands, Apr 2017.
75. ***Engineering Topological Physics with van der Waals Heterostructures***
Condensed Matter Seminar, Copenhagen, Denmark, Apr 2017.
76. ***Exploring Quantum Electronic Transport in Flatland***
Niels Bohr Lecture, Copenhagen, Denmark, Apr 2017.
77. ***Exploring Quantum Transport in Flatland***
Physics Colloquium, Georgiatech, Apr 2017.

78. ***Superconductivity, Quantum hall & Topological Physics in van der Waals Heterostructures***
US National Academies Workshop, Washington DC, Mar 2017.
79. ***Exploring Quantum Transport in Flatland***
Physics Colloquium, Chicago, Mar 2017.
80. ***Exploring Quantum Transport in Flatland***
Physics Colloquium, Univ. Washington, Seattle, Feb 2017.
81. ***Graphene & Other 2D Materials***
Ramon Areces Foundation Symposium, Madrid, Spain, Jun 2016.
82. ***Exploring Quantum Transport in Flatland***
Physics Colloquium, Cornell, May 2016.
83. ***Dirac electrons – Living on the edge***
Harvard CIQM Lecture, Harvard, Mar 2016.
84. ***Dirac electrons – Living on the edge***
Physics Colloquium, Weizmann Institute, Israel, Jun 2015.
85. ***Dirac electrons – Living on the edge***
Physics Colloquium, Hebrew University in Jerusalem, Israel, Jun 2015.
86. ***Dirac electrons – Living on the edge***
Yale Physics Colloquium, Yale, Mar 2015.
87. ***Dirac electrons – Living on the edge***
Condensed Matter Seminar, Princeton, Apr 2015.
88. ***Dirac electrons – Living on the edge***
Physics Colloquium, MIT, Oct 2014.
89. ***The World of Atomically-Thin 2D-Layered Materials***
Science Colloquium, Universidad Politecnica de Valencia, Spain, Dec 2013.
90. ***The versatility of Dirac electrons in graphene***
Condensed Matter Seminar, Penn State, Oct 2013.
91. ***The versatility of Dirac electrons in graphene***
Condensed Matter Seminar, ICFO, Barcelona, Spain, Jun 2013.
92. ***The versatility of Dirac electrons in graphene***
Condensed Matter Seminar, UC Berkeley, Apr 2013.
93. ***The versatility of Dirac electrons in graphene***
VINSE Colloquium, Vanderbilt, Mar 2013.
94. ***The versatility of Dirac electrons in graphene***
Physics Colloquium, Brandeis University, Mar 2013.
95. ***The versatility of Dirac electrons in graphene***
Physics Colloquium, University of Toronto, Feb 2013.
96. ***The versatility of Dirac electrons in graphene***
Physics Colloquium, Northeastern University, Feb 2013.
97. ***The versatility of Dirac electrons in graphene***
Physics Colloquium, Caltech, Feb 2013.
98. ***2D or not 2D, Quantum Transport and Optoelectronics in Novel Low Dimensional Materials***
Physics/Applied Physics Colloquium, Stanford University, May 2012.
99. ***Quantum Transport & Optoelectronics in Graphene on Boron Nitride Devices***
CM Seminar, University of Illinois at Urbana Champaign, USA, Apr 2012.

100. ***Quantum Transport & Optoelectronics in Graphene on Boron Nitride Devices***
CM Seminar, University of Pennsylvania, USA, Apr 2012.
101. ***Quantum Transport and Optoelectronics in Graphene on Boron Nitride Devices***
CM Seminar, Michigan State University, USA, Feb 2012
102. ***2D or not 2D, Electronic Transport in Novel Low Dimensional Materials***
Packard Fellows Conference, Monterrey, USA, Sep 2011
103. ***Quantum Electronic Transport in Topological Insulators***
DOE Contractors Meeting, Washington DC, USA, Aug 2011.
104. ***Electronic Transport in Graphene on Boron Nitride devices***
MIT-INL Workshop, Braga, Portugal, Jul 2011.
105. ***2D or not 2D, Electronic Transport in Novel Low Dimensional Materials***
Columbia NSEC Symposium, Columbia University, USA, Jun 2011.
106. ***2D or not 2D, Electronic Transport in Novel Low Dimensional Materials***
Physics Colloquium, Georgetown University, USA, May 2011.
107. ***2D or not 2D, Electronic Transport in Novel Low Dimensional Materials***
Physics Colloquium, Dartmouth College, USA, May 2011.
108. ***Electronic Transport in Novel Low Dimensional Materials***
Laboratory for Physical Sciences Condensed Matter Seminar, University of Maryland, USA, May 2011.
109. ***Electronic Transport in Novel Low Dimensional Materials***
Condensed Matter Seminar, Rutgers, USA, Mar 2011.
110. ***2D or not 2D, Electronic Transport in Low-Dimensional Graphitic Systems***
Instituto Catalan de Nanociencia (ICN), Condensed Matter Seminar, Barcelona, Spain, Jan 2011.
111. ***Idem***
Instituto Catalan de Fotonica (ICFO), Condensed Matter Seminar, Barcelona, Spain, Jan 2011.
112. ***2D or not 2D, Electronic Transport in Novel Low Dimensional Materials***
Harvard Applied Physics Colloquium, Harvard, USA, Apr 2010.
113. ***Anisotropic Etching and Crystallographic Nanoribbon Formation in Graphene***
Army Research Laboratory workshop on graphene research, ARL, Adelphi, USA, Aug 2009.
114. ***Nanotechnology in a pencil trace***
IFIC Colloquium, Universidad de Valencia, Spain, Jan 2009.
115. ***Idem***
Colloquium, Universidad Politecnica de Valencia, Spain, Jan 2009.
116. ***Electronic Transport in Graphene Nanostructures***
Condensed Matter Seminar, Ohio State University, USA, Nov 2008.
117. ***Electronic transport in locally gated graphene nanostructures***
YESS 08, Washington DC, Jul 2008.
118. ***Nanotechnology in a Pencil Trace***
Nanoscience Day, University of Maryland, USA, May 2008.
119. ***Idem***
Condensed Matter Seminar, Yale University, USA, Apr 2008.
120. ***Nanotechnology in a Pencil Trace***
New York Academy of Sciences Vista Seminar, New York, USA, Jan 2008
121. ***Electronic Transport in Graphene Nanostructures***

IBM Physical Sciences Seminar, IBM Watson Research Center, Yorktown Heights, USA, Jan 2008.

122. ***Quantum Nanoelectronics in Low-DimensionalCarbon Materials***
MIT Physics Department, MIT, USA, Mar 2007.

123. ***Low Temperature Electronic Transport Properties of Graphene***
CIN2-ICN Seminar, Barcelona, Spain, Feb 2007.

124. ***Low Temperature Electronic Transport Properties of Graphene***
MIT Modern Optical Spectroscopy Seminar Series, MIT, USA, Nov 2006.

125. ***Supercurrent in Mesoscopic Graphene***
Condensed Matter Seminar, Harvard University, USA, Nov 2006.

126. ***Quantum Dots in Carbon Nanotubes***
Department of Applied Physics Seminar, Universidad de Alicante, Spain, May 2006.

127. ***Idem***
Condensed Matter Seminar, University of Basel, Switzerland, Feb 2006.

128. ***Carbon Nanotubes as Quantum Dots***
Condensed Matter Seminar, Stanford University, USA, Jan 2006.

129. ***Electronic Transport through Carbon Nanotube Quantum Dots***
Condensed Matter Seminar, Harvard University, USA, Dec 2005.

130. ***Idem***
Condensed Matter Seminar, MIT, USA, Dec 2005.

131. ***Idem***
Nanoscience Center Seminar, Columbia University, USA, Dec 2005.

132. ***Quantum Dots in Carbon Nanotubes.***
QSIT and Laser seminar, ETH Zürich, Switzerland, Nov 2005.

133. ***Magnetic Tuning of Carbon Nanotube Quantum Dots.***
Catalan Institute of Nanotechnology Seminar, Barcelona, Spain, Oct 2005.

134. ***Magnetic Tuning of Carbon Nanotube Quantum Dots.***
Colloquium of the Austrian Chemical-Physical Society (CGP), University of Vienna, Austria, Jun 2005.

135. ***Orbital Spectroscopy and Kondo Effect in Carbon Nanotubes.***
Department of Electrical Engineering Seminar, University of Cambridge, UK, Feb 2005.

136. ***Orbital Spectroscopy and Multi-level Kondo Effect in Carbon Nanotubes.***
NTT seminar, NTT Basic research Laboratories, Atsugi, Japan, Jan 2005.

137. ***Idem.***
Prof. Tarucha's Group Seminar, University of Tokyo, Japan, Jan 2005.

138. ***Idem.***
AIST Seminar, AIST, Tsukuba, Japan, Jan 2005.

139. ***Orbital Spectroscopy and Kondo Effect in Carbon Nanotubes.***
Condensed Matter Theory Seminar, Ludwig Maximilians Universität Munich, Germany, Nov 2004.

140. ***Electronic Transport in Suspended Carbon Nanotube Quantum Dots.***
Department of Applied Physics Seminar, Universidad de Alicante, Spain, May 2004.

141. ***Idem.***
Condensed Matter Seminar, Instituto de Ciencias de Materiales Madrid, Spain, May 2004.

142. ***Electronic Transport in Suspended Carbon Nanotube Quantum Dots.***
Condensed Matter Theory Seminar, Universität Regensburg, Germany, Jan 2004.

143. ***Coulomb Blockade Phenomena in Suspended Carbon Nanotubes.***
Nanophysics Group Seminar, Ludwig Maximilians Universität Munich, Germany, Nov 2002.

SUPERVISED UNDERGRADUATES, GRADUATE STUDENTS, POSTDOCS AND VISITORS.

Undergraduate students:

1) Asikainen, Antti Eero (MIT). FA21, IAP22
2) Alshalan, Ghadah (MIT). SU, FA20, IAP, SP 21 UROP. Currently grad student at Oxford.
3) Reese, Maya (MIT). IAP,SP, SU 20 UROP. Currently at MIT.
4) Phinney, Isabelle (MIT). FA 18, IAP, SP, SU, FA 19, IAP, SP, SU 20 UROP. Currently graduate student at Harvard.
5) Dinh, Thao (MIT). IAP, SP, SU, FA18, IAP, SP 19, FA19 UROP. Currently graduate student at Harvard.
6) Guajardo, Uriel (MIT). IAP & SP 18 UROP. Currently at MIT.
7) Miers, Andres (MIT). Summer & Fall 16, IAP, Spring, Summer & Fall 17, IAP & SP 18 UROP. Currently graduate student in physics at Harvard.
8) Wang, Christina (MIT). Summer & Fall 16, IAP 17 UROP. Currently at MIT.
9) Prembabu, Saranesh (MIT). Fall 15, IAP & Spring 16 UROP. Currently at MIT.
10) Kunapuli, Nikhil (MIT). Fall 14 UROP. Currently at MIT.
11) Machado, Francisco (MIT), IAP, Spring & Summer 15 UROP. Currently graduate student in physics at UC Berkeley.
12) Akkaravarawong, Kamphol (MIT), Summer & Fall 13, IAP, Spring, Summer & Fall 14, IAP & Spring 15 UROP. Currently graduate student in physics at UC Berkeley.
13) Andersen, Trond (MIT), Summer& Fall 13, IAP, Spring, Summer & Fall 14, IAP & Spring 15 UROP. Currently graduate student in physics at Harvard.
14) Eltinge, Stephen (MIT), Summer & Fall 13, IAP, Spring & Summer 14 UROP. Currently graduate student in physics at Yale.
15) Mekonen, Sirak (Jackson State University), MIT MSRP, Summer 13
16) Lin, Qian (MIT), Fall 12, IAP & Spring 13 UROP. She was awarded the 2013 Malcolm Cotton Brown Award by the MIT Physics department. Currently graduate student in physics at Stanford.
17) Ho, Scott (U. of Utah), MIT CMSE REU student, Summer 12.
18) Choi, Sang Hyun (MIT), Summer & Fall 12, IAP, Spring, Summer & Fall 13 UROP. Currently graduate student in physics at Urbana-Champaign.
19) Zhou, Leo (MIT), Summer & Fall 12 UROP. Currently graduate student in physics at Harvard.
20) Mello, Olivia (MIT), Spring, Summer & Fall 12 UROP.
21) Chen, Yu-An (MIT), Fall 11, Spring, Summer & Fall 12 UROP. Currently graduate student in physics at Caltech.
22) Fisher, Kevin (MIT), Summer & Fall 11, IAP & Spring 12 UROP. Currently Stanford EE Graduate Student.
23) Angarita, Maria Paula (Florida International U.), MIT MSRP, Summer 11. Currently student at MIT's Technology and Science Policy Program.
24) del Alamo, Miguel (U.Barcelona, Spain), summer visitor, Summer 11. Currently at U. Barcelona, Spain.

25) Orona, Lucas (MIT), IAP, Spring, Summer & Fall 11, IAP, Spring & Summer 12 UROP, IAP & Spring, Fall 13, Spring 14 UROP. Currently graduate student in physics at Harvard.
26) Nair, Nityan (MIT), IAP, Spring, Summer & Fall 11, IAP, Spring, Summer & Fall 12, IAP & Spring 13 UROP. Nityan won a Goldwater Scholarship in Apr 2012 and the 2013 Joel Matthew Orloff Research Award by the MIT Physics Department. Currently physics graduate student at UC Berkeley.
27) Zhang, Khang (MIT), Fall 10, IAP & Spring 11 UROP.
28) Surakitbovorn, Kawin (MIT), Fall 10, IAP, Spring & Summer 11 UROP. Currently EE graduate student at Stanford.
29) Wei, Haofei (MIT), Spring, Summer & Fall 10, IAP 11 UROP. Currently physics graduate student at Cornell.
30) Bulmash, Danny (MIT), IAP, Spring & Summer 10 UROP. Currently physics graduate student at Stanford.
31) Ellison, Rachel (MIT), Spring & Summer 10 UROP.
32) Chen, Linda (MIT), IAP, Spring & Summer 10 UROP. Currently at NYU Medical School.
33) Cottle, Amy (MIT), Fall 09 UROP.
34) Geller, Sarah (MIT), Summer & Fall 09 UROP. Currently graduate student at MIT.
35) Kennedy, Chris (MIT), Spring & Summer 09 UROP. Currently graduate student in math at Ohio State University.
36) van Tilburg, Ken (MIT), Spring, Summer, Fall 09 & Spring 10 UROP. Currently postdoc at Princeton.
37) Gamalski, Andrew CMSE REU, Arizona State University (Jul-Aug 2008). Received Marshall Scholarship to study PhD at University of Cambridge. Currently at Intel.
38) Shen, Fangfei (MIT), Summer 08 UROP.
39) Wright, Alexandra (MIT), 5 weeks volunteer research, MIT (Apr-May 2008). Currently at Exxon Mobil.

BS Student Thesis Supervised:

1) Wei, Haofei (MIT). "Towards the Fabrication of Suspended Superconductor-Graphene-Superconductor Josephson Junctions", graduated in 2011. Currently physics graduate student at Cornell.
2) Nair, Nityan (MIT). "Photon-Induced Tunneling in Graphene-Boron-Nitride Heterostructures", graduated in 2013. Currently physics graduate student at UC Berkeley.

Graduate Students:

1) Rao, Sakanda, in progress (Sep 2022 – present)
2) Sun, Shuwen, in progress (Sep 2021 – present)
3) Wang, Xueqiao, in progress (Sep 2020 – present)
4) Xia, Liqiao, in progress (Feb 2020 – present)
5) Park, Jeong Min, in progress (Oct 2018 – present)
6) Wang, Xirui, in progress (Aug 2018 – present)
7) Zheng, Zhiren, in progress (Aug 2018 – present)
8) Rodan-Legrain, Daniel, in progress (Jul 2016 – May 2022). Currently postdoc at MIT.
9) Klein, Dahlia (Jul 2015 – Jun 2021). Currently postdoc at Weizmann Institute.
10) Cao, Yuan (Sep 2014 – Aug 2020). Currently postdoc at MIT.
11) Luo, Yuanhong (Jason) (Sep 2012 – May 2018). Currently researcher in Singapore.

12) Yang, Yafang (Sep 2012 – May 2019). Currently software engineer at GoDaddy.
13) Fatemi, Valla (Aug 2010 – Dec 2017). Currently Assistant Prof. of Physics at Cornell.
14) Ma, Qiong (Sep 2010 – Apr 2016). Currently Assistant Prof. of Physics at Boston College.
15) Sanchez-Yamagishi, Javier (Oct 2008 – Jan 2015). Currently Assistant Professor of Physics at UC Irvine.
16) Taychatanapat, Thiti (Jul 2008 – Jun 2013). Currently Associate Professor of Physics at Chulalongkorn University, Thailand.
17) Herring, Patrick (May 2010 – May 2014). Currently working at Zee.
18) Baugher, Britton (Jan 2008 – May 2014). Currently working at Motorola Research Labs.
19) Wang, Joel-I Jan, (Jan 2008 – Dec 2015). Currently Postdoc at MIT.

Postdoctoral Researchers:

1) Wang, Jiaojie (Aug 2022 – present)
2) Uri, Aviram (Sep 2021 – present)
3) Benitez, Antonio (Mar 2021 – present)
4) Cao, Yuan (Sep 2020 – Jun 2021). Currently Harvard Society Fellow.
5) Randeria, Mallika, Pappalardo Fellow (Sep 2019 – Feb 2022). Currently Research Staff at MIT Lincoln Laboratory
6) Collignon, Clement (Aug 2019 – present)
7) de la Barrera, Sergio (Jul 2019 – present)
8) Yasuda, Kenji (Sep 2018 – present)
9) Bandurin, Denis, Pappalardo Fellow (Sep 2018 – Aug 2021). Currently assistant Prof. at NUS.
10) Fatemi, Valla (Jan 2018 – May 2018). Currently assistant Prof. at Cornell.
11) MacNeill, David (Feb 2017 – Mar 2022). CUrrently Data Scientist at Pagaya.
12) Wu, Sanfeng, Pappalardo Fellow (Sep 2016 – Dec 2018). Currently Assistant Prof. of Physics at Princeton.
13) Mueed, M.A. (Sep 2016 – Apr 2018). Currently at IBM Almaden.
14) Ma, Qiong (May 2016 – Dec 2020). Currently Assistant Prof. of Physics at Boston College.
15) Wang, Joel I-Jan (Jan 2016 – Dec 2016). Currently Research Scientist at MIT.
16) Bretheau, Landry (Mar 2015 – Jun 2017). Currently Assistant Prof. of Physics at L'Ecole Polytechnique, France.
17) Bie, Yaqing (Jan 2014 – Aug 2018). Currently Assistant Professor of Physics at Sun Yat-Sen University, China.
18) Navarro-Moratalla, Efren (Jan 2014 – Feb 2017). Currently Researcher at Univ. of Valencia, Spain.
19) Churchill, Hugh, Pappalardo Fellow (Sep 2012 – Jul 2015). Currently Assistant Prof. of Physics at Univ. of Arkansas-Fayetteville.
20) Young, Andrea (co-supervised with Ray Ashoori), Pappalardo Fellow (Jan 2012 – Mar 2015). Currently Associate Prof. of Physics at UC Santa Barbara.
21) Katmis, Ferhat (shared with J. Moodera) (Jul 2011 – Aug 2014). Currently postdoc at MIT.
22) Gabor, Nathaniel (Oct 2010 – Jul 2013). Currently Associate Prof. of Physics at UC Riverside.
23) Campos, Leonardo (May 2010 – Nov 2012). Currently Associate Prof. of Physics at UFMG, Belo Horizonte, Brazil.
24) Steinberg, Hadar (Jul 2009 – Jul 2013). Currently Associate Prof. of Physics at the Hebrew University in Jerusalem.

25) Ndukum, Tchefor (Sep 2010 – Jul 2012). Currently at Intel.
26) Zaffalon, Michele (Jan 2008 – Feb 2010). Currently at Zurich Instruments.

Visitors:
1) Soriano, Eric; visiting BS student from UPC, Spain (Aug 2019 – present)
2) Tschudin, Märta; visiting graduate student from U. Basel (Jul 2019 – Dec 2019)
3) Rubies-Bigorda, Oriol; visiting BS student from UPC, Spain (Jul 2018 – May 2019)
4) Pita-Vidal, Marta; visiting BS student from UPC, Spain (Jul 2016 – May 2017)
5) Rodan-Legrain, Daniel; visiting BS student from UPC, Spain (Jul 2015 – May 2016)
6) Furchi, Marco Mercurio; visiting graduate student from TU Vienna, Austria (Jun – Dec 2015)
7) Pisoni, Riccardo; visiting MSc student from EPFL, Switzerland (Jun 2015 – Mar 2016)
8) Zhang, Yijin; visiting graduate student from Univ. of Tokyo, Japan (Apr – Jun 2014)
9) Back, Patrick; visiting MSc student from EPFL, Switzerland (Feb – Jul 2014)
10) Campos, Leonardo; visiting graduate student from UFMG, Brazil (May 2008 – Jul 2009)

TEACHING EXPERIENCE

- MIT: 8.01L Classical Mechanics (FA15-IAP16, FA16-IAP17, FA17-IAP18, FA18-IAP19, FA19-IAP20, FA20-IAP21, FA21-IAP22, FA22-IAP23), 8.044 Statistical Mechanics (SP16), 8.223 Advanced Classical Mechanics (IAP13, IAP14, IAP15), 8.03 Vibrations and Waves (SP12), 8.231 Introduction to Solid State Physics (FA11, FA12), 8.04 Quantum Mechanics (FA08, SP09, FA09, SP10), 8.14 Junior Physics Laboratory (SP08).
- Physics for Engineers, Delft University of Technology, 2001-2003.
- Teaching Assistant, University of California San Diego, 1999-2001 (general physics, quantum mechanics, physics for engineers, advanced solid state laboratory).

MIT SERVICE

- DOE EFRC Center for the Advancement of Topological Semimetals Executive Committee (2022 – present)
- MIT Committee on Nominations (2022 – 2023)
- MIT Commencement Committee (2021 – 2023)
- MIT Committee on Climate Change (2020 – 2021)
- MIT Team 2021 Task Force Committee (2020-2021)
- MIT School of Science Dean Search Committee (2020)
- MIT.nano Leadership Council Member (2017 – present)
- Faculty Policy Committee, Provost Designee (2017 – 2019)
- Co-organizer Mildred Dresselhaus Memorial Event (held Dec 2017)
- Head of House at Next House (Jul 2016 – present)
- MIT Committee on Undergraduate Program Study Group on Undergrad Majors (Mar 2016 – Jun 2019)
- Edgerton Award Committee (2016-17, Chair 2017-18)
- DOE EFRC Center for Excitonics Executive Committee (2014 – 2017)
- NSF STC Center for Integrated Quantum Materials Executive Committee (2013 – present)
- Pappalardo Fellowships Executive Committee (2013 – 2020, Chair FA17 – FA20 competitions)
- CMX Faculty Search Committee (2010 – present)
- CMX Faculty Search Committee Equal Opportunities Representative (2012)

- Organizer Chez Pierre Condensed Matter Physics Seminars (2011 – present)
- Co-Director of the MIT-MTL Center for Graphene Devices and 2D Systems (2012 – present)
- MIT's MRSEC Center for Materials Science and Engineering Internal Advisory Committee member (2010 – 2014)
- Faculty Advisory Board member in MIT's new Materials Research Facility Committee (2010 – 2017)
- Founder and Organizer Boston Area Carbon Nanoscience (BACON) Seminars, now turned into BACON+ (2008 – 2020)
- CMX Graduate Admissions Reviewer and Open House Organizer (2008 -2011, 2021, and informally 2012 - present)
- Part III General Exam Committee (Spring & Fall) (2008 – present)
- PhD Thesis Committee of Shengxi Huang (May 17), Edbert Sie (May 17), Joaquin Rodriguez-Nieva (Jun 16), Keigo Arai (Jan 16), Laura Popa (Jan 15), Andrew Potter (Jul 13), Rahul Nadkishore (Jul 12), Aviv Keshet (Aug 12), Sejoong Kim and Paul Antohi (Apr 11), Marc van Huizanen (Dec 09) and Hyungbing Son (Apr 08)
- Part I General Exam grader (FA 08, FA 11, and FA 14)
- Dinner with Society of Women Engineers (2016)
- Dinner with Undergraduate Women in Physics (2011, 2012)
- Dinner with MIT Society of Physics Students (2009, 2011)
- Dinner with MIT Society of Hispanic Professional Engineers (2011)
- Gave IAP Physics Series Lectures (2010, 2014)
- Participated in Commencement Ceremony (2011, 2013, 2016)
- Gave talk at MIT's Science and Engineering Program for Teachers (SEPT) meeting (2008, 2009)
- Lab Tour for the Northeastern Undergraduate Women in Physics Conference held at MIT (2011)
- Hosted MIT MSRP Hispanic student Maria Paula Angarita for 8 weeks (summer 2010)
- Organizer Topological Insulator Lectures for Condensed Matter Experimentalists, given by Dr. Liang Fu, back then at Harvard (Dec 2010 - Feb 2011)
- Co-organizer Mildred Dresselhaus 80th Birthday Symposium (2010)
- Gave talk at MIT's Materials Processing Center Industrial Advisory Board review (2008, 2009)
- Hosted Jonathan Vargas-Rodriguez, undergraduate student from UMET, Puerto Rico, for 2 weeks (Jun 2009), as part of the CMSE partnership program with UMET. My graduate student Javier Sanchez-Yamagishi spent 2 weeks in Puerto Rico visiting UMET (Dec 2009)
- Gave Talk at MIT's Microsystems Technology Laboratory Industrial Advisory Board review (2009, 2016)
- Gave Talks at MIT's MTL Microlunch, Physics Faculty Lunch, Physics Breakfast with donors, and Physics Staff Meeting (2008)

SELECTED EXTERNAL SERVICE & ACTIVITIES

- Member of the Jury, King Jaume I Prize, Basic Research (2021,2022).
- Member of the Selection Committee, APS Oliver Buckley Prize (2021, 2023).
- Scientific Program Committee, M2S2022 (Vancouver, Canada, 2022).
- Organizer San Sebastian Workshop on Moiré Materials (San Sebastian, Spain, 2022).
- Organizer ICFO Quantum Materials workshop (ICFO, Spain, 2022).
- Organizer Frontiers of Quantum Materials & Devices workshop (Valencia, Spain, 2022).

- Vice-Chair (2021) and Chair (2023) for GRC Conference on "New Materials and Structures in Topological and Correlated Systems"
- Elected Member at Large of the Executive Committee of the Division of Condensed Matter Physics, American Physical society (2019-2022)
- Founder and Organizer of the Rising Stars in Physics Workshops, academic career workshops for young women physicists (held at MIT 2016 & 2018, at Stanford 2019, at Princeton 2022).
- Reviewer AFOSR, ARO, DOE, Dutch FOM, EU-ERC, Israeli NSF, NSF proposals.
- Panelist DOE National Labs Review, NSF Career Awards and NSF proposals.
- Journal referee: Science, Nature, Nature Physics, Nature Nanotechnology, Nature Materials, Nature Communications, Phys. Rev. Lett., Phys. Rev. B, Nano Letters, ACS Nano Research, Carbon, New Journal of Physics, EPL, 2D Materials.

EXTERNAL OUTREACH ACTIVITIES

2022: - Organizer and Co-chair of the 2022 Rising Stars in Physics Workshop (Princeton, Sep 2022)

2020: - Collaboration with Youtuber QuantumFracture to produce Youtube video about Quantum Materials and Magic-Angle Graphene (in Spanish). The video has over 1,000,000 views since May 2020.
- Organizer and Co-chair of the 2020 Rising Stars in Physics Workshop (Princeton, Apr 2020 – postponed due to covid-19).

2019: - Organizer and Co-chair of the 2019 Rising Stars in Physics Workshop (Stanford, Apr 2019).

2018: - Organizer and Chair of the 2018 Rising Stars in Physics Workshop (MIT, Apr 2018).

2017: - Popular Talk and Podcast for the Nano Days at the Boston Museum of Science.

2016: - Organizer and Chair of the first Rising Stars in Physics Workshop (http://physicsrisingstars.mit.edu/), an academic career workshop for top women postdocs and students. Held at MIT in Oct 2016.

2015: - Hosted Amele Habtemichael and Chris Mbochwa, two deaf and hard of hearing undergraduate students from Gallaudet University, for a summer research project (8 weeks) in my lab.

2013: - Gave multiple interviews to Spanish Media in connection with my Plenary Talk at the Biannual Meeting of the Spanish Royal Physics Society in Valencia, Spain. Media: newspapers (*El Pais, Levante, Agencia EFE, Las Provincias*).

2012: - Gave interview for "Diverse: Issues in Higher Education", a magazine catering to Hispanics and Latinos.
- Gave multiple interviews to Spanish Media in connection with my PECASE award. Media: newspapers (*El Mundo, ABC, Levante, Agencia EFE, Las Provincias*), TV (*Agencia EFE for RTVE*, Spanish National TV), Radio (*Cadena SER, Radio Nacional, Radio 9, Cadena COPE*).

2011: - Gave interview (in Spanish) for a new textbook titled "Ciencias del Mundo Contemporáneo" ("Science in the Contemporary World") edited by MacGraw-Hill. This book will be studied by millions of high school students in Spain and, possibly, Latin-

American countries. It includes at the end of each chapter an interview with a young researcher on the chapter's topic (in my case Nanoscience).
- Radio Interview for Actualidad 1020 Miami, radio station catering to Hispanics in Miami.
- The NOVA-PBS documentary "Making Stuff: Smaller" was aired Jan 26, and it's available on-line (http://www.pbs.org/wgbh/nova/tech/making-stuff-smaller.html). It featured interview to PJH and graphene demonstration by minority student Javier Sanchez-Yamagishi.

2010: - Hosted film crew for a NOVA-PBS series on materials research "Making Stuff".
- Interview (in Spanish) for El Mundo newspaper supplement "*Innovadores"* (Innovators).

2009: - Honors project interview with Arturo Leon, a Hispanic physics major at the Honors College of Miami Dade College, Florida (Nov)
- Translated 2 computer animation applets from the Physics Education Technology group at UC Boulder ("Ladybug Motion in 2D" and "States of Matter") into Spanish (May)

2008: - Interview (in Spanish) for TV program "Tecnopolis" from the Universidad Politecnica de Valencia, Spain.