

BIOGRAPHICAL SKETCH

ARON PINCZUK

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Academic Degrees:

Licenciado in Physics, Facultad de Ciencias Exactas y
Naturales, Universidad de Buenos Aires, Argentina: April 1962
Ph.D in Physics, University of Pennsylvania, Philadelphia, USA: January 1969.

Positions Held:

January 1998 to Date:

Professor of Physics and of Applied Physics, Columbia University, New York, NY

January 1978 to February 2008

Bell Laboratories, Holmdel, NJ; and Murray Hill, NJ

September 1976 – December 1977:

IBM Research, Yorktown Heights, NY

December 1975 - August 1976:

Max Planck Institut fur Feskorperforschung, Stuttgart, Germany.

November 1973 - September 1974:

Department of Physics, Faculty of Science, University of Buenos Aires, Argentina.

March 1971 - April 1976:

Member of Staff, National Research Council, Buenos Aires, Argentina.

March 1971 - March 1976:

National Atomic Energy Commission, Buenos Aires, Argentina.

Honors and Awards

Distinguished Member of Staff Award AT&T Bell Labs (December 1985).

Fellow of the American Physical Society (December 1987).

1994 Oliver E. Buckley Prize for Condensed Matter Physics, awarded by the American Physical Society.

Doctorate Degree, "Honoris-Causa", Universidad Autonoma, Madrid, Spain, (June 1997).

Fellow of American Association for the Advancement of Science (AAAS).

Avanessians Diversity Award, Columbia University (May 2008).

Elected to the American Academy of Arts and Sciences (April 2009).

SEAS Faculty Excellence Award, Columbia University (Fall 2015).

Recent Professional Activity

Editor in Chief of the Journal of Solid State Communications (2005- to date)

Member of review panel of the Division of Materials Research of the U.S.

National Science Foundation.

Member of review panel of the Division of Materials Sciences & Engineering, Basic Energy Sciences, U.S. Department of Energy.

Member of review panels of Ministerio de Ciencia, Tecnología e Innovación Productiva (Argentina).

Member of the organizing, program and advisory committees of national and international conferences.

Selected Publications

1. “Two-Dimensional Mott-Hubbard Electrons in an Artificial Honeycomb Lattice”, A. Singha, M. Gibertini, B. Karmakar, S. Yuan, M. Polini, G. Vignale, M.I. Katsnelson, A. Pinczuk, L.N. Pfeiffer, K.W. West, V. Pellegrini, *Science*, 332, 1176 (2011).
2. “Visualizing Individual Nitrogen Dopants in Monolayer Graphene”, L.Y. Zhao, R. He, K.T. Rim, T. Schiros, K.S. Kim, H. Zhou, C. Gutierrez, S.P. Chockalingam, C.J. Arguello, L. Palova, D. Nordlund, M.S. Hybertsen, D.R. Reichman, T.F. Heinz, P. Kim, A. Pinczuk, G.W. Flynn, A.N. Pasupathy, *Science* 333, 999 (2011).
3. “Graphene growth on h-BN by Molecular Beam Epitaxy”, Jorge M. Garcia, Ulrich Wurstbauer, Antonio Levy, Loren N Pfeiffer, Aron Pinczuk, Annette S. Plaut, Lei Wang, Cory R. Dean, Roberto Buizza, Arend Van Der Zande, James Hone, Kenji Watanabe, and Takashi Taniguchi, *Solid State Comm.* 152, 1289 (2012).
4. “Large Physisorption Strain in CVD Graphene on Copper Substrates”, Rui He, Liuyan Zhao, Nicholas Petrone, Keun Soo Kim, Michael Roth, James Hone, Philip Kim, Abhay Pasupathy, and Aron Pinczuk, *Nano Letters*, 12, 2408 (2012).
5. “Resonant inelastic light scattering investigation of low-lying gapped excitations in the quantum fluid at $\nu=5/2$ ”, U. Wurstbauer, K. W. West, L. N. Pfeiffer, A. Pinczuk, *Phys. Rev. Lett.*, 110, 026801 (2013).
6. “Fractionally charged skyrmions in fractional quantum Hall effect”, A. C. Balram, U. Wurstbauer, A. Wojs, A. Pinczuk, J. K. Jain, *Nature Communications*, 6, 8981(2015).
7. “Optical Emission Spectroscopy Study of Competing Phases of Electrons in the Second Landau Level”, A. L. Levy, U. Wurstbauer, Y. Kuznetsova, A. Pinczuk, L. N. Pfeiffer, K. West, M. J. Manfra, G. C. Gardner, and J. D. Watson, *Physical Review Letters*, 116, 016801 (2016).
8. “Observation of Dirac bands in artificial graphene in small-period nanopatterned GaAs quantum wells”, S. Wang, D. Scarabelli, L. J. Du, Y. Kuznetsova, L. N. Pfeiffer, K. West, V. Pellegrini, M. J. Manfra, G. Gardner, S. J. Wind, A. Pinczuk, *Nature Nanotechnology*, 13, 29 (2018).
9. “Emerging many-body effects in semiconductor artificial graphene with low disorder”, Lingjie Du, Sheng Wang, Diego Scarabelli, L. N. Pfeiffer, K. W. West, S. Fallahi, G. C. Gardner, M. J. Manfra, V. Pellegrini, S. J. Wind, A. Pinczuk, *Nature Communications*, 9, 3299 (2018).
10. “Observation of new plasmons in the fractional quantum Hall effect: Interplay of topological and nematic orders”, Lingjie Du, Ursula Wurstbauer, K. W. West, L. N. Pfeiffer, S. Fallahi, G. C. Gardner, M. J. Manfra, A. Pinczuk, *Science Advances*, 5, eaav3407 (2019).