**Hunter R. Johnson**
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## Current Job:

- Associate Professor of Mathematics and Computer Science
  John Jay College, CUNY (August 2008 to present).

## Education:

- May 2008 University of Maryland, College Park, MD
  PhD. in Mathematics
- May 2004 University of Maryland, College Park, MD
  MA in Mathematics
- May 2000 Beloit College, Beloit, WI
  BS in Mathematics, Computer Science, and Philosophy

## Research Interests:

- Theoretical Computer Science
- Mathematical Logic
  - Stability Theory
  - Dependent (NIP) Theories
- Bioinformatics
- Machine Learning

## Journal Publications

- Johnson HR, Blandino JA, Mercado BC, Galván JA, Higgins WJ, Lents NH, et al. The evolution of de novo human-specific microRNA genes on chromosome 21. *American Journal of Biological Anthropology* 178(2) (2022): 223-243.
- Johnson HR, Trinidad DD, Guzman S, Khan Z, Parziale JV, DeBruyn JM, et al. A Machine Learning Approach for Using the Postmortem Skin Microbiome to Estimate the Postmortem Interval. *PLoS ONE* 11(12) (2016): e0167370. https://doi.org/10.1371/journal.pone.0167370
- Johnson HR, Deimel L, Howell W, Roberts M, Proni G. A Survey of Level II Friction Ridge Detail in Palm Prints. *Forensic Science Journal*, 14.1 (2015): 1-8.
- Johnson HR. Vapnik-Chervonenkis density on indiscernible sequences, stability, and the maximum property. *Notre Dame Journal of Formal Logic*, 56.4 (2015): 583-593.

- Johnson HR. Some new maximum VC classes. *Information Processing Letters*, 114.6 (2014): 294–298.
- Johnson HR. Dp-rank and forbidden configurations. *Notre Dame Journal of Formal Logic* 54.1 (2013): 1-14.
- Johnson HR, Laskowski MC. Compression schemes, stable definable families, and o-minimal structures. *Discrete and computational geometry* 43.4 (2010): 914-926.

## Papers Reviewed

- Journal of Forensic Sciences
- Information Processing Letters
- Educational Studies in Mathematics
- Archive for Mathematical Logic

## Conference Talks

- Building Research Innovation at Community Colleges (BRICCs), Lightning Talk on Grant Work at John Jay. 7/15-7/22/2023 Santa Fe, NM.
- (invited) North American Annual Meeting of the Association for Symbolic Logic, Session on Logic and Machine Learning. 4/6-4/10/2022 Cornell, Ithaca NY, *Binary Strings of Finite VC Dimension.*
- Joint Mathematics Meetings of the American Mathematical Society (AMS), MAA Contributed Paper Session on Incorporating Programming and Computing in the Math Major Curriculum. 1/14-1/19/2019 Baltimore, MD *A Difference Oriented View of Leibniz's Early Ideas.*
- Princeton University Library Open Access Week, Panel on Open Educational Resources, Student Learning, and Social Justice. 10/26/18 Princeton, NJ. Panel Member.
- (invited) International Conference of Mathematicians (ICM), Satellite Workshop on Classification Theory.) 8/6-8/9/2014 Daejeon, South Korea *Some new maximum VC classes.*
- (invited) 15th Latin American Symposium on Mathematical Logic (SLALM), (workshop on dependent theories.) 6/12/2012 Villa de Leyva, Colombia *Dp-rank and forbidden configurations.*

Association for Symbolic Logic, North American Meetings, contributed talks

- 5/9/13 U Waterloo, *Vapnik-Chervonenkis density on indiscernible sequences, stability, and the maximum property*
- 3/24/11 UC Berkeley, *Coherence and uniformly definable types over finite sets.*
- 5/20/09 U Notre Dame, *Compression schemes, o-minimal structures, and uniform definability of types.*
- 3/27/08 UC Irvine, *Linear growth in VC dimension.*

## Seminar Talks

- 3/2015 Bronx Community College, Mathematics Seminar
- 11/2014 CUNY Graduate Center, Model Theory Seminar
- 11/2012 CUNY Graduate Center, Model Theory Seminar
- 4/18/2011 Carnegie Mellon University, Model Theory Seminar (invited)
- 2/8/2011 Connecticut College (invited)
- 9/14/2010 University of Maryland, Logic Seminar (invited)
- 1/10/2010 CUNY Graduate Center, Model Theory Workshop
- 5/8/2009 CUNY Graduate Center, Model Theory Workshop
- 5/12/2009 Rockefeller University, Laboratory of Living Matter (invited)
- 3/12/2007 James Madison University (invited)
- University of Maryland, various dates

## Research Awards and Grants:

- 2021 CISE-MSI:RCBP-ED:SaTC: Cultivating and Developing Research Talent to Support Research in Cyber-Security, coPI with Marie-Helen Maras, Samuel Graff, Matluba Khodjaeva and Shweta Jain ($299,000)
- 2021 PSC-CUNY grant, Traditional B ($6k)
- 2019 Collaborative Open Education Resources in STEM Program (CO-ERS) coPI with Gary Welz ($10k)
- 2018/2019 Women in Tech NYC (WiTNY) coPI with Shweta Jain ($21k)
- 2018 CS0 4All CUNY OER Initiative ($5k)
- 2013 PSC-CUNY grant, Traditional A ($3k)
- 2011 PSC-CUNY grant, Traditional B ($6k)
- 2010 PSC-CUNY grant, Traditional B ($6k)
- 2009 PSC-CUNY grant, Traditional B ($6k)
- 2006/2007 University of Maryland, Math Department, Seymour Goldberg Award
  An essay contest.
- 2006/2007 University of Maryland, Ann G Wylie Dissertation Fellowship
  Support for one semester.
- 2006/2007 University of Maryland, Math Department Dissertation Fellowship

## Teaching Experience:

- August 2008 - Present, John Jay College, CUNY, Assistant Professor of Mathematics & Computer Science, Graduate faculty for Masters in Digital Forensics and Cybersecurity

  Courses taught: CSCI 360 (Cryptography), CSCI 373 (Advanced Data Structures), FCM 700 (Theoretical Foundations of Computing Security), FCM 708 (Foundations of Digital Forensics I), FCM 709 (Foundations of Digital Forensics II), CSCI 400 (Capstone Experience in Digital Forensics), MAT 410 (Abstract Algebra), MAT 243 (Calculus III), MAT 242 (Calculus II), MAT 241 (Calculus I), (various other courses).

- August 2003 - August 2007, University of Maryland, College Park, MD
  Teaching Assistant

- January 1997 - May 1997, Beloit College, Beloit, WI
  Undergraduate Teaching Assistant

## Teaching Awards:

- 2011,2013 John Jay, invited by multiple students to attend Dean's List reception

- 2006/2007 University of Maryland Math Department TA award 3rd place

- 2006/2007 University of Maryland, Center for Teaching Excellence, Distinguished TA award

- 2005/2006 University of Maryland Math Department TA award (Finalist)

## Work Experience:

- 2000/2001 ABN-AMRO (Contractor)
  - Software Developer for worldwide financial institution. Created and modified components of a back-office payment interface, account manager, and other programs.
  - Worked with financial specialists to make automatically generated financial statements presentable and useful.

## Programming Skills:

- Fluent in programming languages including C, Python (NumPy, SciPy), Octave/Matlab, SAGE, C#, C++, Java, PERL, SQL, Unix shell.