LIN YANG

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RESEARCH INTERESTS

Streaming algorithms, sketching, sublinear time/memory algorithms, high-dimensional geometry, cosmology

EDUCATION

Johns Hopkins University, Baltimore, MD

Ph.D. Candidate in Physics & Astronomy (6th Year), Advisor: Alex Szalay — 2012-Present

Ph.D. Candidate in Computer Science (2th Year), Advisor: Vladimir Braverman — 2015-Present

MS.E. in Computer Science (GPA 4.0/4.0) — 2015

Tsinghua University, Beijing, China

B.S. in Math & Physics with High Honors — 2011

PUBLICATIONS

1. With Braverman, V., Chestnut, S., Krauthgamer., *Streaming Matrix Norm faster*, In preparation — 2016
2. With Braverman, V., Frahling, G., Lang H., Sohler C. *Clustering High Dimensional Dynamic Data Streams*, In Preparation — 2016
3. With Błasiok, J., Braverman, V., Chestnut, S., Krauthgamer, *Streaming Symmetric Norms via Measure Concentration*, In Preparation — 2016
4. With Liu, Z., Ivkin, N, Neyrinck, M., Lemson, G., Szalay, A., Braverman, V., Budavari, T., Burns, T. and Wang, X., *Streaming Algorithms for Halo Finders*, eScience — 2015
5. With Braverman, V., Chestnut, S., *Streaming Space Complexity of Nearly All Functions of One Variable on Frequency Vectors*, PODS — 2016
6. With Neyrinck, M., Silk, J., *Void Density Profile As an Indicator of Warm Dark Matter ,* MNRAS — 2015
7. With Braverman, V., Liu, Z., Singh, T. Vinodchandran, N. V., *Identifying Streaming Cliques using extremal graph theory,* MFCS — 2015
8. With Chakraborty, D., Pavan, A., Tewari, R. Vinodchandran, N. V., *New Time-Space Upperbounds for Directed Reachability in High-genus and H-minor-free Graphs,* FSTTCS — 2014
9. With Silk, J., Szalay, A., Wyse, R., Bozek, B., and Madau P*., Dark matter contribution to Galactic diffuse gamma ray emission,* Physical Review D — 2014
10. With Aragon-Calvo, M. F., *The hierarchical nature of the spin alignment of dark matter haloes in filaments,* MNRAS — 2013
11. With Neyrinck, M., *Ringing the initial Universe: the response of overdensity and transformed-density,* MNRAS — 2013
12. With Szalay A., *A GPU-based visualization method for computing the dark matter annihilation signal,* ADASS — 2013
13. With Zhang, X, Wang Y., and Yi, H., Tao P., *Harmonicare: a novel wind instrument easy to learn and play, Ubicomp, 497-498* — 2011
14. With Feng, H.,& Kaaret, P., *Optical Study of Ultra-Luminous X-ray Source NGC1313 X-1*, Astrophysical Journal, 733, 118 — 2011

WORK & TEACHING EXPERIENCE

Johns Hopkins University, Teaching Assistant for Randomized Algorithms — Fall 2016

Johns Hopkins University, Teaching Assistant for Randomized Algorithms — Fall 2015

TimezenStudio, Shanghai, Part-time Android developer — 2015-Present

Jiangyin Justeck Inc., IT assistant internship, Jiangsu, China — June 2014

IDIES, Johns Hopkins University, Research Assistant at Professor Alex Szalay group 2012-Present

Johns Hopkins University, Teaching Assistant of General Physics & General Physics Experiments 2011-2012

AWARDS

The Dean Robert H. Roy Fellowship, Johns Hopkins University	2015
Global Winner (2nd) for the Microsoft "Imagine Cup" Embedded Dev. Comp.	July 2011
Outstanding (Bachelor) Graduate Award from Tsinghua Univ.	July 2011
Ye Qisun Award (Highest Undergraduate Student Award to physics majors)	June 2011
Meritorious Award for the Mathematical Contest in Modeling, USA	April 2010

SKILLS

Language:	Mandarin Chinese (native), English (fluently)
Programming:	Multi-year experience in *C, C++, Java, Python, Matlab* *Android Development (experienced developer)*

REFERENCE

Alex Szalay	Professor, Johns Hopkins University *Tel: (410)-516-7217* *Email: szalay@jhu.edu*
Vladimir Braverman	Assistant Professor, Johns Hopkins University *Tel: (410) 516-4975* *Email: vova@ cs.jhu.edu*
Robert Krauthgamer	Professor, Weizmann Institute of Science Tel: *+08-9344281* Email: *robert.krauthgamer@weizmann.ac.il*
Vinodchandran N. Variyam	Professor, University of Nebraska-Lincoln Tel: *(402) 472-5002* Email: *vinod@cse.unl.edu*