Nithin Mahendra Varma

Department of Computer Science
Boston University
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AREAS OF RESEARCH

Algorithms for Big Data (Sublinear Algorithms), Bioinformatics Algorithms, Graph Algorithms.

EDUCATION

Ph.D. in Computer Science
Boston University — Fall 2017 - (expected) Summer 2019
The Pennsylvania State University — Fall 2014 - Summer 2017
CPI : 3.98/4.0
Thesis Title (tentative): Faster, Fault-resilient Sublinear Algorithms
Advisor: Dr. Sofya Raskhodnikova

M.Sc. in Computer Science
TIFR Mumbai, India — August 2011 - July 2014
Thesis Title : Small Stretch Pairwise Spanners and D-spanners.
Advisor: Dr. Kavitha Telikepalli

B.Tech. in Computer Science & **Engineering (Gold Medal)**
NIT Calicut, India — July 2007 - June 2011
GPA : 9.44/10 (Ranked First in the Institute)
Thesis Title : A Study of Matching Problems in Graphs.
Advisor: Dr. K. Muralikrishnan

PUBLICATIONS AND MANUSCRIPTS

(All publications have the authors listed in the alphabetical order on the last names as per the convention in theoretical computer science.)

Erasures vs. Errors in Local Decoding and Property Testing.
Sofya Raskhodnikova, Noga Ron-Zewi, Nithin M. Varma.
Accepted to ITCS 2019.

Brief Announcement: Erasure-Resilience versus Tolerance to Errors.
Sofya Raskhodnikova, Nithin M. Varma.
ICALP 2018: 111:1-111:3.

Bipartite Graphs of Small Readability.

Rayan Chikhi, Vladan Jovicic, Stefan Kratsch, Paul Medvedev, Martin Milanic, Sofya Raskhodnikova, Nithin M. Varma.
COCOON 2018: 467-479.

Erasure-Resilient Property Testing.
Kashyap Dixit, Sofya Raskhodnikova, Abhradeep Thakurta, Nithin M. Varma.
SIAM *Journal on Computing,* 47(2):295329, 2018.

Parameterized Function Property Testing.
Ramesh Krishnan S. Pallavoor, Sofya Raskhodnikova, Nithin M. Varma.
ACM *Transactions of Computation Theory*, 9(4): 17:1-17:19, 2018.

Parameterized Function Property Testing.
Ramesh Krishnan S. Pallavoor, Sofya Raskhodnikova, Nithin M. Varma.
ITCS 2017: 12:1-12:17.

Erasure-Resilient Property Testing.
Kashyap Dixit, Sofya Raskhodnikova, Abhradeep Thakurta, Nithin M. Varma.
ICALP 2016: 91:1-91:15.

Small Stretch Pairwise Spanners and Approximate D-preservers.
Telikepalli Kavitha and Nithin Varma.
SIAM *Journal of Discrete Mathematics* 29(4): 2239-2254 (2015).

Small Stretch Pairwise Spanners.
Telikepalli Kavitha, Nithin M. Varma.
ICALP (1) 2013: 601-612.

Rainbow connection number and connected dominating sets.
L. Sunil Chandran, Anita Das, Deepak Rajendraprasad and Nithin M. Varma.
Journal of Graph Theory 71(2): 206-218 (2012).

AWARDS

College of Engineering Fellowship	2014-2017
University Graduate Fellowship	2014-2015
Recipient of Springer Studentship at ICALP	2013
Ranked 6th (top 0.001 percentile) in India in Computer Science GATE	2011
Recipient of Indian Academy of Sciences Summer Research Fellowship	2010

VISITS

National Institute of Informatics, Tokyo, Japan **Spring 2019 (upcoming)**
Host: Dr. Yuichi Yoshida

Max-Planck-Institut für Informatik, Saarbrücken **Summer 2013**

Indian Institute of Science, Bangalore **Summer 2009, 2010**
Worked with Dr. L. Sunil Chandran on problems in structural graph theory.

TALKS AND POSTERS

Erasure-Resilience Versus Tolerance to Errors.
Talk at (1) ICALP 2018.

Bipartite Graphs of Small Readability.
Talk at (1) COCOON 2018.

Erasure-Resilient Property Testing.
Talks at (1) MSR India, (2) IISc, Bangalore, (3) HALG 2016, (4) ICALP 2016, (5) IBM Research, TJ Watson, (6) IIT Madras, India (7) University of Michigan, Ann Arbor, (8) Northeastern University, Boston, (9) MIT, Boston. Posters at BU CS Day 2017, WoLa 2016, HALG 2016, MIT Sublinear Day 2015 and, DIMACS Big Data Workshop 2015.

Parameterized Property Testing.
Poster at BU CS Day 2017.

Small Stretch Pairwise Spanners.
Talks at (1) ICALP 2013, (2) TIFR Mumbai, and (3) Penn State University.

TEACHING

Teaching Assistant

CS 530 Advanced Algorithms	BU, Fall 2018 (current)
CS 537 Randomness in Computing	BU, Spring 2018
CSE 565 Design and Analysis of Algorithms	Penn State, Fall 2016

Guest Lectures

CS 530 Advanced Algorithms	BU, Fall 2018 (current)
CS 537 Randomness in Computing	BU, Spring 2018
CSE 597 Approximation Algorithms	Penn State, Spring 2017
CSE 565 Design and Analysis of Algorithms	Penn State, Fall 2016