

## Ioana Oriana Bercea

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## Education

### Ph.D. in Computer Science

2010 – 2018 (expected)

*University of Maryland*, College Park, MD  
Advisor: Samir Khuller

### M.S. in Computer Science

2013

*University of Maryland*, College Park, MD  
Advisor: Aravind Srinivasan

### B.S. in Mathematics and B.S. in Computer Science

2006 – 2010

*University of Chicago*, Chicago, IL  
Honors in Mathematics  
Four-year full grant

## Research Interests

Approximation Algorithms, Combinatorial Optimization, Computational Geometry, Robotics, Randomized Algorithms

## Conference Publications

### 1. Minimizing Uncertainty through Sensor Placement with Angle Constraints.

Ioana O. Bercea, Volkan Isler, Samir Khuller  
*28th Canadian Conference on Computational Geometry*, CCCG 2016

### 2. On Computing Maximal Independent Sets of Hypergraphs in Parallel.

Ioana O. Bercea, Navin Goyal, David G. Harris, Aravind Srinivasan  
*26th ACM Symposium on Parallelism in Algorithms and Architectures*, SPAA 2014

## Journal Publications

### 1. On Computing Maximal Independent Sets of Hypergraphs in Parallel.

Ioana O. Bercea, Navin Goyal, David G. Harris, Aravind Srinivasan  
*ACM Transactions on Parallel Computing*, Special issue on SPAA 2014

## Manuscripts

### 1. Counting Small Cliques and Four Node Subgraphs in Bounded Degeneracy Graphs

Saba Ahmadi, Ioana O. Bercea, Samir Khuller, Sheng Yang

### 2. New Approximations for the Graph Vertex Pricing Problem.

Ioana O. Bercea, David G. Harris

## Research Experience

<b>Research Internship</b> <i>Max Planck Institute for Informatics, Saarbrücken, Germany</i> w. Tobias Mömke	Summer 2017
<b>Research Internship</b> <i>Max Planck Institute for Informatics, Saarbrücken, Germany</i> w. Parinya Chalermsook, Mayank Goswami	Summer 2016
<b>Research Internship</b> <i>Microsoft Research India, Bangalore, India</i> w. Navin Goyal	Summer 2012

## Teaching Experience

<b>Co-Instructor</b> <i>University of Maryland, Department of Computer Science</i> – Introduction to Computer Programming via the Web	Spring 2016
<b>Teaching Assistant</b> <i>University of Maryland, Department of Computer Science</i> – Intro. to Comp. Progr. via the Web – Discrete Structures – Algorithms – Introduction to Computer Systems – Object Oriented Programming I, II	2010 – 2017  Fall '17 Fall '11,'15,'16, Spring '14,'15,'17 Spring '12 Spring '11, Summer '11 Fall '10, '13
<b>Junior Tutor</b> <i>University of Chicago, Department of Mathematics</i> – Elementary Functions and Analysis 1,2,3	2009 – 2010

## Honors and Awards

<b>Outstanding Graduate Assistant Award</b> Top 2% of all UMD Graduate Assistants	2014 – 15
<b>University of Maryland Dean's Fellowship</b>	2010 – 12
<b>University of Chicago Dean's List</b>	2006-07,2007-08,2009-10
<b>University of Chicago Full Grant</b>	2006 – 2010
<b>Romanian National Mathematics Olympiad</b> Bronze medals in the National Olympiad Top 3 prizes in national and regional contests	2001 – 2006

## Service

**Conference Reviewer** 2017  
*SPAA 2017, FC 2018*

**Journal Reviewer** 2017  
*Networks, ACM Transactions on Sensor Networks*

**Graduate Student Representative for Department Council** 2015 – 2016  
*University of Maryland, Department of Computer Science*

**Graduate Student Representative for Education Committee** 2012 – 2014  
*University of Maryland, Department of Computer Science*

## Employment

**Tutor** 2007 – 2010  
*University of Chicago, Department of Computer Science*  
MacLab Instructional Laboratory