

# Curriculum Vitae

## Maria Chudnovsky

### Contact Information

Department of IEOR  
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**Date of Birth:** January, 6, 1977

**Citizenship:** Israel; US permanent resident

### Present Position

Associate Professor, IEOR Department (with an appointment in the Mathematics Department), Columbia University

### Research Interests

Graph Theory and Combinatorial Optimization

### Employment history

2003-2005 Veblen Research Instructor, Princeton University and the IAS

2003-2008 Clay Research Fellow, The Clay Mathematics Institute

2005-2006 Assistant Professor, Princeton University

### Education

Ph.D Princeton University, Mathematics, 2003

*Thesis Title :* Berge Trigraphs and Their Applications.

*Thesis Advisor:* Paul Seymour

M.A Princeton University, 2002

M.SC Technion, Israel Institute of Technology, Mathematics, 1999.

*Thesis Title* : Systems of Disjoint Representatives.

*Thesis Advisor*: Ron Aharoni

B.A. *Summa Cum Laude* Technion, Israel Institute of Technology , Mathematics, 1996.

### **Other Experience:**

1996 - 1999 Service in the Israel Defense Force.

### **Honors and Awards:**

- Ostrowski research stipend (2004)
- Clay Mathematics Institute Research fellowship (2003-2008)
- Excellence Fellowship for graduate study (1997)
- Byckov Foundation Award for Excellent Academic Achievements (1996)
- The Technion President Award (3 times, 1995, 1996)
- The Dean Award (1995)
- Full tuition and maintenance allowance scholarship during the undergraduate study.  
This scholarship was awarded to me because I was accepted to the Technion Excellence Program.

### **Invited Talks:**

**2008**

- Mathematics Colloquium, Haifa University, Haifa, Israel
- Joint Mathematics and IME Colloquium, WMU, Kalamazoo, MI
- Mathematics Colloquium, Brigham Young University, Provo, Utah
- 3eme cycle romand de Recherche Operationnelle, Zinal, Switzerland

- Oberwolfach Meeting on Combinatorics, Oberwolfach, Germany

## 2007

- Joint Meeting of the AMS - NZMS 2007, Victoria University, Wellington, New Zealand
- IV Latin-American Graphs Algorithms and Optimization, Puerto Varas, Chile
- The ADONET-CIRM School on Graphs and Algorithms, Levico Terme, Italy
- Combinatorics Seminar, CUNY Graduate Center, New York, NY
- Princeton Discrete Math Seminar, Princeton, NJ
- 21st British Combinatorial Conference, Reading, UK
- *C&O@40*, University of Waterloo, Waterloo, ON, Canada
- 20th Cumberland Conference, Emory University, Atlanta, GA
- Oberwolfach Meeting on Graph Theory, Oberwolfach, Germany
- ACM-SIAM Symposium on Discrete Algorithms (SODA), New Orleans, LA

## 2006

- Combinatorics Seminar, University of Michigan, Ann Arbor, MI
- Discrete Mathematics and Theoretical Computer Science Seminar, Yale University, New Haven, CT
- CS Colloquium, City University of New York, New York, NY
- 2nd Annual Heilbronn Conference, Bristol, UK
- CS Colloquium, New York University, New York, NY
- 19th International Symposium on Mathematical Programming, Rio de Janeiro, Brazil
- SIAM Conference on Discrete Mathematics, Victoria, BC

- Sixth Haifa Workshop on Interdisciplinary Applications of Graph Theory, Combinatorics and Algorithms, University of Haifa, Haifa, Israel
- Theory of Computing Seminar, The Hebrew University at Jerusalem, Jerusalem, Israel
- Bar Ilan University Discrete Math Seminar, Israel
- Discrete Math Seminar, The Hebrew University at Jerusalem, Jerusalem, Israel
- Discrete Math and Theory of Computing Seminar, Rutgers University, Piscataway, NJ
- Joint SFU/UBC Discrete Mathematics Computing Science Seminar, Vancouver, BC, Canada
- Theory of combinatorial algorithms mittagseminar, ETH, Zurich, Switzerland
- Oberwolfach Meeting on Combinatorics, Oberwolfach, Germany

## 2005

- Workshop on Graph Classes, Width Parameters and Optimization, Prague, The Czech Republic
- 7th International Colloquium on Graph Theory ICGT '05, Giens, France
- Combinatorics Seminar, UC Berkeley, Berkeley, CA
- Mathematics Colloquium UC Berkeley, Berkeley, CA
- Combinatorial Mathematics and its Applications, Oxford, England
- Princeton/Oxford Meeting, Oxford University, Oxford, England
- Mathematics Colloquium, The Ohio State University, Columbus, OH
- 49th Graph Theory Day, Shirley, NY
- MAA annual meeting, Metropolitan New York Section, Queens, NY
- Workshop on Combinatorics and Telecommunications, Icapui, Ceara, Brazil

- Computer Science/Discrete Mathematics Seminar, IAS, Princeton, NJ
- 9th Combinatorial Optimization Workshop, Aussois, France
- CAM Colloquium, Cornell University, Ithaca, NY
- Oberwolfach Meeting on Graph Theory, Oberwolfach, Germany
- Algorithms seminar, McGill University, Montreal, Canada

## 2004

- Joint conference: the 2004 NZIMA Conference in Combinatorics and its Applications and the 29th Australasian Conference in Combinatorial Mathematics and Combinatorial Computing, Lake Taupo, New Zealand
- Combinatorics Seminar, University of Pennsylvania, Philadelphia, PA
- ACCOTA 2004 International Workshop, Combinatorial and Computational Aspects of Optimization, Topology and Algebra, San Cristbal de las Casas, Chiapas, Mexico
- Tenth annual Big Sky Conference on Discrete Mathematics, Missoula, MN
- Latin American Conference on Combinatorics, Graphs and Applications, Santiago, Chile
- Prague Midsummer Combinatorial Workshop XI, Prague, Czech Republic
- Graph Theory 2004 conference in memory of Claude Berge, Paris, France
- SIAM Conference on Discrete Mathematics, Nashville, TN
- Computer Science Colloquium, University of Haifa, Haifa, Israel
- Mathematics Colloquium, The Technion, Haifa, Israel
- Fourth Haifa Workshop on Interdisciplinary Applications of Graph Theory, Combinatorics and Algorithms, University of Haifa, Haifa, Israel
- France-Israel Expert Workshop on Graph Classes and Graph Algorithms, University of Haifa, Haifa, Israel

- Computer Science/ Discrete Math Seminar, IAS, Princeton, NJ
- Combinatorics Seminar, LaPCS, Université Claude Bernard Lyon 1, Lyon, France
- Oberwolfach Meeting on Combinatorics, Oberwolfach, Germany

### 2003

- Advances in Graph and Matroid Theory, The Ohio State University, Columbus, OH
- DIMACS Mixer Series, Princeton, NJ
- Princeton/Oxford Meeting, Oxford University, Oxford, England
- Combinatorics, Probability and Algorithms, Centre de recherches mathématiques, Université de Montréal, Montréal, Canada
- Combinatorics Seminar, Tel-Aviv University, Tel-Aviv, Israel
- Spring School on Combinatorics, Topology and Convexity at the Institute for Advanced Study, The Hebrew University at Jerusalem, Jerusalem, Israel
- Erdos Lecture, The Hebrew University at Jerusalem, Jerusalem, Israel
- Special Colloquium, Haifa University, Haifa, Israel
- CMI Research Academy, Clay Mathematics Institute, Cambridge, MA
- Combinatorics Seminar, University of Pennsylvania, Philadelphia, PA
- CS Theory Seminar, Department of Computer Science, Princeton, NJ
- ACO Colloquium, Georgia Institute of Technology, Atlanta, GA
- Tenth Workshop on Applied/Advanced Research in Combinatorial Optimization, University of Southern Denmark, Odense, Denmark
- Oberwolfach Meeting on Graph Theory, Oberwolfach, Germany
- Tutte Seminar, University of Waterloo, Ontario, Canada

### 2002

- ACCOTA 2002 International Workshop, Combinatorial and Computational Aspects of Optimization, Topology and Algebra, San Cristbal de las Casas, Chiapas, Mexico
- 2nd Columbia Optimization Day, Advances in Optimization, Columbia University, New York, NY
- ARCC Workshop on The Perfect Graph Conjecture, American Institute of Mathematics, Palo Alto, CA
- The Joint ALADDIN/Theory/Operations Research Seminar, Carnegie Mellon University, Pittsburgh, PA
- Discrete Math/Theory of Computing Seminar, Rutgers University, Piscataway, NJ
- Combinatorics and Number Theory Seminar, SUNY at Binghamton
- A Conference on Matroid Structure Theory in Honour of W.T. Tutte, The Ohio State University
- CS Theory Seminar, Department of Computer Science, Princeton
- Oberwolfach Meeting on Geometric Convex Combinatorics, Oberwolfach, Germany
- Discrete Mathematics Day at Dartmouth College

### 2001

- Courant Institute Geometry Seminar, NYU, New York, NY
- Princeton Discrete Math Seminar, Princeton, NJ
- Sectional meeting of AMS, April 28-29, 2001  
Session on matchings in graphs and hypergraphs

### 2000

- Bar Ilan University Discrete Math Seminar, Israel

- The Technion Discrete Math Seminar, Israel

### **Student Supervision:**

*PhD (ongoing):* Alexandra Ovetsky Fradkin, Yori Zwols

*Senior Theses:* Rohan Kapadia, Alexandra Ovetsky

*Junior projects:* David Lyn, Alexandra Ovetsky

*Independent summer research project:* Rohan Kapadia

### **Teaching Experience:**

*Spring 2007* Columbia University, Introduction to OR—Deterministic Models, IEOR4004, instructor

*Fall 2006* Columbia University, Advanced Topics in IEOR—Graph Theory, IEOR8100, instructor

*Spring 2005* Princeton University, Introduction to Graph Theory, MAT306/COS342, instructor

*Fall 2002* Princeton University, MAT 202, Linear Algebra With Applications, instructor

*Spring 2002* Princeton University, MAT 104, Calculus, teaching assistant

*Fall 2001* Princeton University, MAT 202, Linear Algebra With Applications, teaching assistant

*Spring 2000* The Technion, Combinatorial Algorithms, teaching assistant

*Fall 1999* The Technion, Introductory Combinatorics, teaching assistant