

Publications and Preprints

Maria Chudnovsky

Journal papers published

1. Simplicial vertices in graphs with no induced four-edge path or four-edge antipath, and the H_6 -conjecture (*with* Peter Maceli), *Journal of Graph Theory*, 76 (2014), 249-261.
2. Coloring graphs with forbidden induced subgraphs, *Proceedings of the ICM*, 2014
3. Tournaments with near-linear transitive subsets, (*with* Krzysztof Choromanski and Paul Seymour), *Journal of Combinatorial Theory, Ser B* 109 (2014), 228-249.
4. Large cliques and stable sets in undirected graphs, in *Geometry, Structure and Randomness in Combinatorics, Publications of the Scuola Normale Superiore / CRM Series*, (eds: J. Matousek, J. Nešetřil and M. Pellegrini), *Edizioni della Normale*
5. Excluding pairs of graphs (*with* Alex Scott and Paul Seymour), *Journal of Combinatorial Theory, Ser B*, 106(2014), 15-29
6. Lines in hypergraphs (*with* Laurent Beaudou, Adrian Bondy, Xiaomin Chen, Ehsan Chiniforooshan, Vašek Chvátal, Nicolas Fraiman, Yori Zwols), *Combinatorica*, 33 (2013), 633-654
7. The Erdős-Hajnal conjecture—A Survey, *Journal of Graph Theory*, 75 (2014), 178-190
8. The structure of claw-free perfect graphs (*with* with Matthieu Plumettaz), *Journal of Graph Theory*, 75 (2014), 203-230
9. Rao's conjecture on degree sequences (*with* Paul Seymour), *Journal of Combinatorial Theory, Ser. B* , 105 (2014), 44-92
10. Extending the Gyárfás-Sumner conjecture (*with* Paul Seymour), *Journal of Combinatorial Theory, Ser. B* , 105 (2014), 11-16
11. Detecting an induced net subdivision (*with* Paul Seymour and Nicolas Trotignon), *Journal of Combinatorial Theory, Ser. B* , 103 (2013), 630-641
12. Substitutions and χ -boundedness (*with* Irena Penev, Alex Scott and Nicolas Trotignon), *Journal of Combinatorial Theory, Ser. B* , 103 (2013), 567-586
13. The structure of bull-free perfect graphs (*with* Irena Penev), *Journal of Graph Theory*, 74 (2013), 1-31
14. A counterexample to a conjecture of Schwartz (*with* Felix Brandt, Ilhee Kim, Gaku Liu, Sergey Norin, Alex Scott, Paul Seymour and Stephan Thomasse) *Social Choice and Welfare*, 40 (2013), 739-743
15. A local strengthening of Reed's ω , Δ , and χ conjecture for quasi-line graphs (*with* Andrew King, Matthieu Plumettaz and Paul Seymour), *SIDMA*, 27 (2013), 95-108

16. Finding minimum clique capacity (with Sang-il Oum and Paul Seymour) *Combinatorica*, 32 (2012), 283-287
17. Packing seagulls (with Paul Seymour) *Combinatorica*, 32 (2012), 251-282
18. Clawfree Graphs VII. Quasi-line graphs (with Paul Seymour) *Journal of Combinatorial Theory, Ser. B*, 102 (2012), 1267-1294
19. Growing without cloning (with Paul Seymour), *SIDMA*, 26 (2012), 860-880
20. Tournaments and coloring (with Eli Berger, Krzysztof Choromanski, Jacob Fox, Martin Loeb, Alex Scott, Paul Seymour and Stephan Thomassé), *Journal of Combinatorial Theory, Ser. B*, 103 (2013), 1-20
21. Perfect matchings in planar cubic graphs (with Paul Seymour) *Combinatorica*, 32 (2012), 403-424
22. Large cliques or stable sets in graphs with no four-edge path and no five-edge path in the complement (with Yori Zwols), *Journal of Graph Theory*, 70 (2012), 449 - 472
23. Excluding induced subdivisions of the bull and related graphs (with Irena Penev, Alex Scott and Nicolas Trotignon), *Journal of Graph Theory*, 71 (2012), 49 - 68
24. Tournament immersion and cutwidth (with Alexandra Fradkin and Paul Seymour) *Journal of Combinatorial Theory. Ser B*, 102 (2012), 93-101
25. Three-colorable perfect graphs without even pairs (with Paul Seymour) *Journal of Combinatorial Theory. Ser B*, 102 (2012), 363-394
26. Analyzing the performance of greedy maximal scheduling via local pooling and graph theory (with Berk Birand, Bernard Ries, Paul Seymour, Gil Zussman and Yori Zwols), *IEEE/ACM Trans. Netw.* 20 (2012), 163–176.
27. The structure of bull-free graphs I — Three-edge-paths with center and anticenters *Journal of Combinatorial Theory. Ser B*, 102 (2012), 233-251
28. The structure of bull-free graphs II and III—a summary, *Journal of Combinatorial Theory. Ser B*, 102 (2012), pp. 252-282
29. Claw-free graphs with strongly perfect complements. Fractional and integral version. Part I. Basic graph (with Bernard Ries and Yori Zwols) *Discrete Applied Math*, 159(2011), 1971-1995
30. Claw-free graphs with strongly perfect complements. Fractional and integral version. Part II. Nontrivial strip structures (with Bernard Ries and Yori Zwols) *Discrete Applied Math*, 159(2011), 1996-2029

31. Edge density for $K_{2,t}$ minors (with Bruce Reed and Paul Seymour) *Journal of Combinatorial Theory. Ser B*, 101 (2011), 18-46
32. A well-quasi-order for tournaments (with Paul Seymour) *Journal of Combinatorial Theory. Ser B*, 101 (2011), 47-53
33. Clawfree Graphs VI. Coloring claw-free graphs (with Paul Seymour) *Journal of Combinatorial Theory. Ser B*, 100 (2010), 560-572
34. K_4 -free graphs with no odd holes (with N. Robertson, P. Seymour and R. Thomas) *Journal of Combinatorial Theory. Ser B*, 100 (2010), 313-331
35. The three-in-a-tree problem (with Paul Seymour) *Combinatorica*, 30 (2010), 387-417
36. An approximate version of Hadwiger's conjecture for claw-free graphs (with Alexandra Ovetsky Fradkin) *Journal of Graph Theory*, 63 (2010) 259-278
37. Partial characterizations of clique-perfect graphs II : diamond-free and Helly circular-arc graphs (with Flavia Bonomo and Guillermo Durán) *Discrete Mathematics*, 309 (11) (2009), 3485-3499
38. Even pairs in Berge graphs (with Paul Seymour) *Journal of Combinatorial Theory. Ser B*, 99 (2009), 370-377
39. Bisimplicial vertices in even-hole-free graphs (with L. Addario-Berry, F. Havet, B. Reed and P. Seymour) *Journal of Combinatorial Theory. Ser B*, 98 (2008), 1119-1164
40. Clawfree Graphs V — Global structure (with Paul Seymour) *Journal of Combinatorial Theory. Ser B*, 98 (2008), 1373-1410
41. The Erdos Hajnal Conjecture for bullfree graphs (with S. Safra) *Journal of Combinatorial Theory. Ser B*, 98 (2008), 1301-1310
42. Hadwiger's conjecture for quasi-line graphs (with A. Overtsky Fradkin) *Journal of Graph Theory* 59 (2008), 17-33
43. Detecting a theta or a prism (with R. Kapadia) *SIAM Journal on Discrete Math* 22(2008), 1164-1186
44. An algorithm for packing non-zero A -paths in group-labeled graphs (with William H. Cunningham and Jim Geelen) *Combinatorica* 28(2008), 145-161
45. Cycles in dense digraphs (with Paul Seymour and Blair Sullivan) *Combinatorica* 28(2008), 1-18

46. Partial characterizations of clique-perfect graphs I : subclasses of claw-free graphs (with Flavia Bonomo and Guillermo Durán) *Discrete Applied Mathematics* 156 (2008), 1058-1082
47. Clawfree Graphs IV — Decomposition theorem (with Paul Seymour) *Journal of Combinatorial Theory. Ser B*, 98 (2008), 839-938
48. Solution of three problems of Cornuéjols (with Paul Seymour) *Journal of Combinatorial Theory. Ser B*, 98 (2008), 116-135
49. Clawfree Graphs III — Circular interval graphs (with Paul Seymour) *Journal of Combinatorial Theory. Ser B* 98(2008), 812-834
50. Clawfree Graphs II — Non-orientable prismatic graphs (with Paul Seymour) *Journal of Combinatorial Theory. Ser B*, 98 (2008), 249-290
51. Clawfree Graphs I — Orientable prismatic graphs (with Paul Seymour) *Journal of Combinatorial Theory. Ser B*, 97 (2007), 867-901
52. Excluding induced subgraphs (with Paul Seymour) *Surveys in Combinatorics 2007, London Math Soc Lecture Note Series 346*, 99-119
53. Coloring quasi-line graphs (with Alexandra Ovetsky) *Journal of Graph Theory* 54(2007), 41-50
54. The Roots of the Independence Polynomial of a Clawfree Graph (with Paul Seymour) *Journal of Combinatorial Theory. Ser B*, 97 (2007), 350-357
55. The Strong Perfect Graph Theorem (with N.Robertson, P.Seymour, R.Thomas) *Annals of Math* 164(2006), 51-229
56. Non-zero A-paths in graphs with edges labeled by group elements (with Jim Geelen, Bert Gerards, Luis Goddyn, Michael Lohman, and Paul Seymour) *Combinatorica, Ser. B* 26(2006), 521-532
57. Berge Trigraphs *Journal of Graph Theory* 53(2006), 1-55
58. The Structure of Clawfree Graphs (with Paul Seymour) *Surveys in Combinatorics 2005, London Math Soc Lecture Note Series 327*, 153-171
59. Partial characterizations of clique-perfect graphs, (with F. Bonomo, and G.Durán) *Electronic Notes in Discrete Mathematics* 19(2005), 95–101 (extended abstract)
60. Recognizing Berge Graphs (with G.Cornuéjols, X.Liu, P.Seymour, K.Vušković) *Combinatorica* 25(2005), 143-187

61. Detecting Even Holes (*with* K. Kawarabayashi, P. Seymour) *Journal of Graph Theory* 48(2005), 85-111
62. Progress on Perfect Graphs (*with* N. Robertson, P. Seymour, R. Thomas) *Mathematical Programming Ser. B* 97(2003), 405-422
63. Berge Trigraphs and Their Applications, *Ph.D. Thesis, Princeton University, 2003*
64. Triangulated Spheres and Colored Cliques (*with* R. Aharoni, A. Kotlov) *Discrete and Computational Geometry* 28 (2002), 223-229
65. Systems of Disjoint Representatives, *M.Sc. Thesis, The Technion, 1999*

Conference Proceedings

1. Analyzing the Performance of Greedy Maximal Scheduling via Local Pooling and Graph Theory, (*with* Berk Birand, Bernard. Ries, Paul Seymour, Gil Zussman and Yori Zwols) Proc. IEEE INFOCOM'10, Mar. 2010.

Papers to appear

1. Edge-coloring 7-regular planar graphs (*with* Katherine Edwards, Ken-ichi Kawarabayashi and Paul Seymour), *to appear in JCT B*
2. Excluding a near-clique and a near-anticlique (*with* Sergey Norin, Bruce Reed and Paul Seymour), *to appear in SIDMA*
3. Forcing large transitive subtournaments (*with* Eli Berger and Krzysztof Choromanski), *to appear in JCT B*
4. Disjoint paths in tournaments (*with* Alex Scott and Paul Seymour), *to appear in Advances in Mathematics*
5. Excluding paths and antipaths (*with* Paul Seymour), *to appear in Combinatorica*

Papers submitted for publication

1. Three steps towards Gyarfás's conjecture, (*with* Alex Scott and Paul Seymour), *submitted for publication*

2. Graphs with no induced five-vertex path or antipath, (*with* L. Esperet, L. Lemoine, P. Maceli, F. Maffray and I. Penev), *submitted for publication*
3. 4-coloring P_6 -free graphs with no induced 5-cycles. (*with* Peter Maceli, Juraj Stacho and Mingxian Zhong), *submitted for publication*
4. Bipartite minors (*with* Gil Kalai, Eran Nevo, Isabella Novik and Paul Seymour), *submitted for publication*
5. Wheel-free planar graphs (*with* Pierre Aboulker, Paul Seymour and Nicolas Trotignon), *submitted for publication*
6. Disjoint dijoins (*with* Katherine Edwards, Ringi Kim, Alex Scott and Paul Seymour), *submitted for publication*
7. Immersion in four-edge-connected graphs, (*with* Zdenek Dvorak, Tereza Klimosova, Paul Seymour), *submitted for publication*
8. Cliques in the union of graphs (*with* Ron Aharoni, Eli Berger and Juba Ziani), *submitted for publication*
9. Edge-coloring 8-regular planar graphs (*with* Katherine Edwards and Paul Seymour), *submitted for publication*
10. Optimal anti-thickenings of claw-free graphs (*with* Andrew King), *submitted for publication*
11. Coloring perfect graphs with no balanced skew-partitions (*with* Nicolas Trotignon, Théophile Trunck and Kristina Vusković), *submitted for publication*
12. A De Bruijn–Erdős theorem for chordal graphs (*with* Laurent Beaudou, Adrian Bondy, Xiaomin Chen, Ehsan Chiniforooshan, Vašek Chvátal, Nicolas Fraiman, Yori Zwols), *submitted for publication*

Manuscripts not yet submitted and papers in preparation

1. The structure of diamond-free perfect graphs (*with* Irene Lo), *in preparation*
2. Three-coloring P_8 -free graphs with restricted cycle lengths, (*with* Juraj Stacho), *in preparation*
3. Three-coloring graphs with no induced seven-vertex path I : the triangle-free case, (*with* F. Bonomo, P. Maceli, O. Schaudt, M. Stein and M. Zhong), *manuscript*

4. Three-coloring graphs with no induced seven-vertex path II : using a triangle, (*with* Peter Maceli and Mingxian Zhong), *in preparation*
5. Disjoint paths in digraphs of bounded chromatic number (*with* Alex Scott and Paul Seymour), *in preparation*
6. On the Erdős-Lovász Tihany Conjecture in claw-free graphs, (*with* Alexandra Fradkin and Matthieu Plumettaz), *manuscript*