

# SEPEHR HAJEBI

Publications (August 7, 2024)

## ► PUBLISHED (13):

26. List- $k$ -Coloring  $H$ -free graphs for all  $k > 4$   
[Combinatorica \(2024\)](#)  
with *M. Chudnovsky and S. Spirkl*.
25. Tree independence number  
I. (Even hole, diamond, pyramid)-free graphs  
[Journal of Graph Theory \(2024\)](#)  
with *T. Abrishami, B. Alecu, M. Chudnovsky, S. Spirkl and K. Vušković*.
24. Induced subgraphs and tree decompositions  
VIII. Excluding a forest in (theta, prism)-free graphs  
[Combinatorica \(2024\)](#)  
with *T. Abrishami, B. Alecu, M. Chudnovsky and S. Spirkl*.
23. List-3-Coloring ordered graphs with a forbidden induced subgraph  
[SIAM Journal on Discrete Mathematics \(2024\)](#)  
with *Y. Li and S. Spirkl*.
22. Hitting all maximum stable sets in  $P_5$ -free graphs  
[Journal of Combinatorial Theory Series B \(2024\)](#)  
with *Y. Li and S. Spirkl*.
21. Induced subgraphs and tree decompositions  
VII. Basic obstructions in  $H$ -free graphs  
[Journal of Combinatorial Theory Series B \(2024\)](#)  
with *T. Abrishami, B. Alecu, M. Chudnovsky and S. Spirkl*.
20. Induced subgraphs and tree decompositions  
II. Toward walls and their line graphs in graphs of bounded degree  
[Journal of Combinatorial Theory Series B \(2024\)](#)  
with *T. Abrishami, M. Chudnovsky, C. Dibek, P. Rzażewski, S. Spirkl and K. Vušković*.
19. Induced subgraphs and tree decompositions  
V. One neighbor in a hole  
[Journal of Graph Theory \(2023\)](#)  
with *T. Abrishami, B. Alecu, M. Chudnovsky, S. Spirkl and K. Vušković*.
18. Induced subgraphs and tree decompositions  
IV. (Even hole, diamond, pyramid)-free graphs  
[Electronic Journal of Combinatorics \(2023\)](#)  
with *T. Abrishami, M. Chudnovsky and S. Spirkl*.
17. Induced subgraphs and tree decompositions  
III. Three-path-configurations and logarithmic treewidth  
[Advances in Combinatorics \(2022\)](#)  
with *T. Abrishami, M. Chudnovsky and S. Spirkl*.

16. Complexity dichotomy for List-5-Coloring with a forbidden induced subgraph  
[SIAM Journal on Discrete Mathematics](#) (2022)  
*with Y. Li and S. Spirkl.*
15. Minimal induced subgraphs of two classes of 2-connected non-Hamiltonian graphs  
[Discrete Mathematics](#) (2022)  
*with J. Cheriyan, Z. Qu and S. Spirkl.*
14. Edge clique cover of claw-free graphs  
[Journal of Graph Theory](#) (2019)  
*with R. Javadi.*
- SUBMITTED (13):
13. Tree independence number  
 IV. Even-hole-free graphs  
[arxiv:2407.08927](#) (2024)  
*with M. Chudnovsky, P. Gartland, D. Lokshtanov and S. Spirkl.*
12. Tree independence number  
 III. Thetas, prisms and stars  
[arxiv:2406.13053](#) (2024)  
*with M. Chudnovsky and N. Trotignon.*
11. Tree independence number  
 II. Three-path-configurations  
[arxiv:2405.00265](#) (2024)  
*with M. Chudnovsky, D. Lokshtanov and S. Spirkl.*
10. Induced subgraphs and tree decompositions  
 XV. Even-hole-free graphs with bounded clique number have logarithmic treewidth  
[arxiv:2402.14211](#) (2024)  
*with M. Chudnovsky, P. Gartland, D. Lokshtanov and S. Spirkl.*
9. Chordal graphs, even-hole-free graphs and sparse obstructions to bounded treewidth  
[arxiv:2401.01299](#) (2024)  
*Single-author paper.*
8. Induced subgraphs and tree decompositions  
 XIV. Non-adjacent neighbors in a hole  
[arxiv:2311.05719](#) (2023)  
*with M. Chudnovsky and S. Spirkl.*
7. Induced subgraphs and tree decompositions  
 XIII. Basic obstruction in  $\mathcal{H}$ -free graphs for finite  $\mathcal{H}$   
[arxiv:2311.05066](#) (2023)  
*with B. Alecu, M. Chudnovsky and S. Spirkl.*
6. Induced subgraphs and tree decompositions  
 XII. Grid Theorem for pinched graphs  
[arxiv:2309.12227](#) (2023)  
*with B. Alecu, M. Chudnovsky and S. Spirkl.*

5. Induced subgraphs and tree decompositions  
 XI. Local structure in even-hole-free graphs of large treewidth  
[arxiv:2205.04420](#) (2023)  
*with B. Alecu, M. Chudnovsky and S. Spirkl.*
4. Induced subdivisions with pinned branch vertices  
[arxiv:2308.01502](#) (2023)  
*Single-author paper.*
3. Induced subgraphs and tree decompositions  
 X. Towards logarithmic treewidth for even-hole-free graphs  
[arxiv:2307.13684](#) (2023)  
*with T. Abrishami, B. Alecu, M. Chudnovsky and S. Spirkl.*
2. Induced subgraphs and tree decompositions  
 IX. Grid theorem for perforated graphs  
[arxiv:2305.15615](#) (2023)  
*with B. Alecu, M. Chudnovsky and S. Spirkl.*
1. Induced subgraphs and tree decompositions  
 VI. Graphs with 2-cutsets  
[arxiv:2207.05538](#) (2022)  
*with T. Abrishami, B. Alecu, M. Chudnovsky and S. Spirkl.*

► DOCTORAL THESIS:

0. Foreshadowing the Grid Theorem for Induced Subgraphs  
[University of Waterloo](#) (2024)

► UPCOMING:

- 1. Critically  $H$ -free graphs  
*with X. Fan, Sahab Hajebi and S. Spirkl.*
- 2. Induced subgraphs and tree decompositions  
 XVI. Grid Theorem for constellations  
*with M. Chudnovsky and S. Spirkl.*
- 3. Induced subgraphs and tree decompositions  
 XVII. Complete bipartite induced minors  
*with M. Chudnovsky and S. Spirkl.*
- 4. Induced subgraphs and tree decompositions  
 XVIII. Anticomplete induced subgraphs of large treewidth  
*with M. Chudnovsky and S. Spirkl.*
- 5. Clique covers in graphs with stability number two  
*with P. Seymour.*