



WG 2026

52nd International Workshop on Graph-Theoretic Concepts
in Computer Science

Kortrijk, Belgium | 2–4 June 2026



Monday, 1 June 2026

17h00 – 18h30 Welcome reception & registration (hall of building B)

Tuesday, 2 June 2026

08h20 – 08h50 Registration (in front of C611)

08h50 – 09h00 Opening remarks

Session chair: Paweł Rzażewski

09h00 – 09h50 **From graph minors to quantum networks**
Rose McCarty

09h50 – 10h10 **Faster 3-colouring algorithm for graphs of diameter 3**
C. Groenland, H. Koerts, S. Spirkl

10h10 – 10h30 **The planar edge-coloring theorem of Vizing in $O(n \log n)$ time**
P. Jedrzejczak, L. Kowalik

10h30 – 11h00 Coffee break

Session chair: Hans L. Bodlaender

11h00 – 11h20 **Graph Classes Closed under Self-intersection**
K.K. Dabrowski, V. Lozin, M. Milanič, A. Munaro, D. Paulusma, V. Zamaraev

11h20 – 11h40 **Optimal b -Colourings and Fall Colourings in H -Free Graphs**
J. Ahn, T. Eagling-Vose, F. Lucke, D. Manlove, F.M. Granada, D. Paulusma

11h40 – 12h00 **Colouring Graphs Without a Subdivided H -Graph: A Full Complexity Classification**
T. Eagling-Vose, J. Jooker, F. Lucke, B. Martin, D. Paulusma

12h00 – 12h20 **Revisiting Token Sliding on Chordal Graphs**
R. Adak, S.G. Nanoti, P. Tale

12h20 – 12h40 **Is Graph Local Complementation Inherently Sequential?**
P. Concha-Vega

12h40 – 13h50 Lunch break

Tuesday, 2 June 2026 (afternoon)

Session chair: Petr Golovach

- 13h50 – 14h10 **Cycles in unions of transitive tournaments**
B. Alecu, P. Bureo Villafana, V. Lozin
- 14h10 – 14h30 **Hunting for Directed 2-Spiders**
G. Gutowski, G. Kucheriya
- 14h30 – 14h50 **Making an oriented graph acyclic using inversions of bounded or prescribed size**
J. Bang-Jensen, F. Havet, F. Hörsch, C. Rambaud, A. Reinald, C. Silva
- 14h50 – 15h10 **A Note on the Complexity of Directed Clique**
G. Gutowski, M. Rams

15h10 – 15h40 Coffee break

Session chair: Gwenaël Joret

- 15h40 – 16h00 **On the Relation Between Treewidth, Tree-Independence Number, and Tree-Chromatic Number of Graphs**
A. Koutsoutis, K. Krause, C.-H. Liu, M. Redzic, T. Ueckerdt
- 16h00 – 16h20 **Weisfeiler-Leman on graphs of small twin-width**
I. Heinrich, M. Lichter, K. Pakhomenko, S. Raßmann
- 16h20 – 16h40 **Lower Bounds for the Pfaffian Number of Graphs**
E. Junchaya, A. Miranda, C. Lucchesi
- 16h40 – 17h00 **Totally Δ -Modular Tree Decompositions of Graphic Matrices for Integer Programming**
C. McFarland

17h00 – 17h15 Short break

17h15 – 18h30 Business meeting (B422)

Wednesday, 3 June 2026

08h55 – 09h00 Short remarks

Session chair: Daniël Paulusma

09h00 – 09h50 **Graph Searching on Graphs: A Long Story of Pursuit for
Width and Structure**
Test of Time *Dimitrios M. Thilikos*
Award

Session chair: Paweł Rzażewski

09h50 – 10h10 **Trade-off between spread and width for tree decompositions**
Best Paper *H.L. Bodlaender, C. Groenland*

10h10 – 10h30 **Obstructions for Minor-Closed Classes of limiting Densities
Below $3/2$**
Best Student Paper *A. Kominatos, R. Mahmoud, D.M. Thilikos*

10h30 – 11h00 Coffee break

Session chair: Łukasz Kowalik

11h00 – 11h20 **Tight Bounds for some $W[1]$ -hard Problems Parameterized by
Multi-clique-width**
B. Bergougnoux, V. Chekan, S. Kratsch

11h20 – 11h40 **Parameterized Complexity of Power Network Design: Coordinating
Cable Placement is Hard**
T. Hamm, B.M.P. Jansen, F. Motiei

11h40 – 12h00 **Preventing Small Global Cuts by Protecting Edges**
C. Komusiewicz, Z. Liu, N. Morawietz, F. Sommer

12h00 – 12h20 **Optimal path partitions in subcubic and almost-subcubic
graphs**
T. Masařík, M. Włodarczyk, M.A. Yıldız

12h20 – 12h40 **Parameterized Complexity of Isometric Path Partition:
Treewidth and Diameter**
D. Chakraborty, O. Defrain, F. Foucaud, M. Mari, P. Tale

12h40 – 12h45 Conference picture

12h45 – 13h50 Lunch break

Session chair: Prafullkumar Tale

13h50 – 14h10 **Polynomial Kernels for Spanning Tree with Diversity Requirements**
P. Golovach, D. Majumdar, S. Saurabh

14h10 – 14h30 **Clustering with Locally Bounded Ignorance**
J. Garvardt, C. Komusiewicz

14h30 – 14h50 **Complexity of Firefighting on Graphs**
J. Althoetmar, J. Schade, T. Schürenberg

Wednesday, 3 June 2026 (afternoon)

14h50 – 15h00 Short break

15h00 – 18h30 Excursion to Omer Brewery

19h30 – 21h30 Conference dinner at Hotel Damier

Thursday, 4 June 2026

Session chair: Jan Goedgebeur

09h00 – 09h50 **Very Similar, but Not the Same: Local-to-Global Structure, Isomorphism, and Reconstruction**
Pascal Schweitzer

09h50 – 10h10 **The Complexity of Ramsey Arrowing: A Computational Approach for Hardness Proofs**
Z.R. Hassan

10h10 – 10h30 **The S -Hamiltonian Cycle Problem**
A. Amarilli, *A. Lombardo*, M. Monet

10h30 – 11h00 Coffee break

Session chair: Carla Groenland

11h00 – 11h20 **Graph Reconstruction with a Connected Components Oracle**
J. Harviainen, P. Parviainen

11h20 – 11h40 **Implicit representations via the polynomial method**
J. Cardinal, M. Sharir

11h40 – 12h00 **Upward-Planar Drawings with Bounded Span**
P. Angelini, S. Cornelsen, G. Da Lozzo, F. Frati, P. Kindermann, I. Rutter, *J. Zink*

12h00 – 12h20 **Geometric Routing in Geometric Inhomogeneous Random Graphs**
Y.-C. Chiu, M. Kaufmann, K. Lakis, U. Schaller

12h20 – 12h40 **High Beer Index Implies Big Hollow Triangles**
A.K. Das, *V. Jelínek*, J. Kynčl, M. Pergel, F. Schröder, P. Stumpf, P. Valtr

12h40 – 12h45 Closing remarks

12h45 – 14h00 Lunch (hall of building A)

Presenter is underlined. **Red titles** = keynote talks