Carsten Thomassen - DTU Orbit (03/02/2018)

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Department of Applied Mathematics and Computer Science - Professor

Algorithms and Logic

Publications:

A Hamiltonian Cycle in the Square of a 2-Connected Graph in Linear Time
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

Chords in longest cycles
Publication: Research - peer-review › Journal article – Annual report year: 2017

Cycles through all finite vertex sets in infinite graphs
Publication: Research - peer-review › Journal article – Annual report year: 2017

Matching and Compression of Strings with Automata and Word Packing
Publication: Research › Ph.D. thesis – Annual report year: 2017

On the Minimum Number of Spanning Trees in k-Edge-Connected Graphs
Publication: Research - peer-review › Journal article – Annual report year: 2016

Roots of the Chromatic Polynomial
Publication: Research › Ph.D. thesis – Annual report year: 2017

Spanning quadrangulations of triangulated surfaces
Publication: Research - peer-review › Journal article – Annual report year: 2017

The number of colorings of planar graphs with no separating triangles
Publication: Research - peer-review › Journal article – Annual report year: 2016

The Square of a Planar Cubic Graph Is 7-Colorable
Publication: Research - peer-review › Journal article – Annual report year: 2017

Aspects of the Tutte Polynomial
Publication: Research › Ph.D. thesis – Annual report year: 2016
Decomposing graphs into a constant number of locally irregular subgraphs
Publication: Research - peer-review › Journal article – Annual report year: 2016

Graph Decompositions
Publication: Research › Ph.D. thesis – Annual report year: 2016

Group-colouring, group-connectivity, claw-decompositions, and orientations in 5-edge-connected planar graphs
Publication: Research - peer-review › Journal article – Annual report year: 2016

Infinitely connected subgraphs in graphs of uncountable chromatic number
Thomassen, C. 2016 In : Combinatorica. 9 p.
Publication: Research - peer-review › Journal article – Annual report year: 2016

Liftings in Finite Graphs and Linkages in Infinite Graphs with Prescribed Edge-Connectivity
Ok, S., Richter, R. B. & Thomassen, C. 2016 In : Graphs and Combinatorics. 32, 6, p. 2575-2589
Publication: Research - peer-review › Journal article – Annual report year: 2016

Nash-Williams' cycle-decomposition theorem
Publication: Research - peer-review › Journal article – Annual report year: 2016

Orientations of infinite graphs with prescribed edge-connectivity
Publication: Research - peer-review › Journal article – Annual report year: 2015

The 3-flow conjecture, factors modulo k, and the 1-2-3-conjecture
Publication: Research - peer-review › Journal article – Annual report year: 2016

Destroying longest cycles in graphs and digraphs
Publication: Research - peer-review › Journal article – Annual report year: 2015

Extending a perfect matching to a Hamiltonian cycle
Publication: Research - peer-review › Journal article – Annual report year: 2015

The minimum number of minimal codewords in an [n,k]-code and in graphic codes
Publication: Research - peer-review › Journal article – Annual report year: 2014

Erratum to: Commentary for "On planarity of compact, locally connected, metric spaces": (2011), 31, 3 (365-376)
Richter, R. B., Rooney, B. & Thomassen, C. 2014 In : Combinatorica. 34, 2, p. 253-254
Publication: Research - peer-review › Comment/debate – Annual report year: 2014

Graph factors modulo k
Group flow, complex flow, unit vector flow, and the (2+)-flow conjecture
Publication: Research - peer-review › Journal article – Annual report year: 2014

Strongly 2-connected orientations of graphs
Publication: Research - peer-review › Journal article – Annual report year: 2014

Decomposing a graph into bistars
Thomassen, C. 2013 In : Journal of Combinatorial Theory. Series B. 103, 4, p. 504-508
Publication: Research - peer-review › Journal article – Annual report year: 2013

Decomposing graphs into paths of fixed length
Thomassen, C. 2013 In : Combinatorica. 33, 1, p. 97-123
Publication: Research - peer-review › Journal article – Annual report year: 2013

Nowhere-zero 3-flows and modulo k-orientations
Publication: Research - peer-review › Journal article – Annual report year: 2013

The maximum number of minimal codewords in an [n, k]-code
Publication: Research - peer-review › Journal article – Annual report year: 2013

The maximum number of minimal codewords in long codes
Publication: Research - peer-review › Journal article – Annual report year: 2012

From the plane to higher surfaces
Publication: Research - peer-review › Journal article – Annual report year: 2012

On the number of longest and almost longest cycles in cubic graphs
Publication: Research - peer-review › Journal article – Annual report year: 2012

The weak 3-flow conjecture and the weak circular flow
Publication: Research - peer-review › Journal article – Annual report year: 2012

Grinberg's Criterion Applied to Some Non-Planar Graphs
Chia, G. L. & Thomassen, C. 2011 In : Ars Combinatoria. 100, p. 3-7
Publication: Research - peer-review › Journal article – Annual report year: 2011

On planarity of compact, locally connected, metric spaces
Richter, R. B., Rooney, B. & Thomassen, C. 2011 In : Combinatorica. 31, 3, p. 365-376
Publication: Research - peer-review › Journal article – Annual report year: 2011

On the complexity of some colorful problems parameterized by treewidth
Rainbow paths with prescribed ends
Alishahi, M., Taherkhani, A. & Thomassen, C. 2011 In : The Electronic Journal of Combinatorics. 18, 1, p. P86
Publication: Research - peer-review › Journal article – Annual report year: 2011

Switchings, extensions, and reductions in central digraphs
Kündgen, A., Leander, G. & Thomassen, C. 2011 In : Journal of Combinatorial Theory, Series A. 118, 7, p. 2025-2034
Publication: Research - peer-review › Journal article – Annual report year: 2011

Spanning trees and orientations of graphs
Thomassen, C. 2010 In : The Journal of Combinatorics. 1, 2, p. 101-111
Publication: Research - peer-review › Journal article – Annual report year: 2010

Decomposing a planar graph of girth 5 into an independent set and a forest
Publication: Research - peer-review › Journal article – Annual report year: 2009

The chromatic polynomial and list colorings
Publication: Research - peer-review › Journal article – Annual report year: 2009

2-list-coloring planar graphs without monochromatic triangles
Publication: Research - peer-review › Journal article – Annual report year: 2008

Decompositions of highly connected graphs into paths of length 3
Thomassen, C. 2008 In : Journal of Graph Theory. 58, p. 286-292
Publication: Research - peer-review › Journal article – Annual report year: 2008

Edge-decompositions of highly connected graphs into paths
Publication: Research - peer-review › Journal article – Annual report year: 2008

Graph-like continua, augmenting arcs, and Menger's theorem
Publication: Research - peer-review › Journal article – Annual report year: 2008

On the maximum number of cycles in a planar graph
Aldred, R. E. L. & Thomassen, C. 2008 In : Journal of Graph Theory. 57, 3, p. 255-264
Publication: Research - peer-review › Journal article – Annual report year: 2008

Exponentially many 5-list-colorings of planar graphs
Publication: Research - peer-review › Journal article – Annual report year: 2007

Hajos' conjecture for line graphs
Publication: Research - peer-review › Journal article – Annual report year: 2007

Many 3-colorings of triangle-free planar graphs
Publication: Research - peer-review › Journal article – Annual report year: 2007
Some remarks on Hajos' conjecture
Thomassen, C. 2005 In : Journal of Combinatorial Theory. Series B. 93, p. 95-105
Publication: Research - peer-review › Journal article – Annual report year: 2005

Chromatic numbers of triangle-free graphs and their complements
Publication: Research › Conference abstract in proceedings – Annual report year: 2004

Exponentially many 5-list-colorings of planar graphs
Thomassen, C. 2004 2004-14 ed. MAT, DTU.
Publication: Research › Report – Annual report year: 2004

Graphs with not all possible path-kernels
Publication: Research - peer-review › Journal article – Annual report year: 2004

Many 3-colorings of triangle-free graphs
Thomassen, C. 2004 2004-11 ed. MAT, DTU.
Publication: Research › Report – Annual report year: 2004

Quadrangulations and 4-critical graphs
Publication: Research - peer-review › Journal article – Annual report year: 2004

The locally connected compact metric spaces embeddable in the plane
Thomassen, C. 2004 In : Combinatorica. 24, 4, p. 699-718
Publication: Research - peer-review › Journal article – Annual report year: 2004

The number of k-colorings of a graph on a fixed surface
Thomassen, C. 2004 2004-06 ed. MAT, DTU.
Publication: Research › Report – Annual report year: 2004

Tutte's spring theorem
Thomassen, C. 2004 In : Journal of Graph Theory. 45, 4, p. 275-280
Publication: Research - peer-review › Journal article – Annual report year: 2004

A short list color proof of Grötzsch's theorem
Thomassen, C. 2003 In : Journal of Combinatorial Theory, Ser.B. 88, 1, p. 189-192
Publication: Research - peer-review › Journal article – Annual report year: 2003

Graphs with no path-kernels
Aldred, R. E. L. & Thomassen, C. 2003
Publication: Research › Report – Annual report year: 2003

On the chromatic number of pentagon-free graphs of large minimum degree
Thomassen, C. 2003
Publication: Research › Report – Annual report year: 2003

Quadrangulations and 4-color-critical graphs
Thomassen, C. 2003
Publication: Research › Report – Annual report year: 2003
Some remarks on Hajós' conjecture
Thomassen, C. 2003
Publication: Research › Report – Annual report year: 2003

The chromatic number of a graph of girth 5 on a fixed surface
Publication: Research - peer-review › Journal article – Annual report year: 2003

3-connected planar spaces uniquely embed in the sphere
Publication: Research - peer-review › Journal article – Annual report year: 2002

An intersection graph of straight lines
Thomassen, C. 2002 In : Discrete mathematics. 259, 1-3, p. 359-360
Publication: Research - peer-review › Journal article – Annual report year: 2003

An Intersection Graph of Straight Lines
Thomassen, C. 2002
Publication: Research - peer-review › Report – Annual report year: 2002

Long cycles in graphs on a fixed surface
Publication: Research - peer-review › Journal article – Annual report year: 2002

On the chromatic number of triangle-free graphs of large minimum degree
Thomassen, C. 2002 In : Combinatorica. 22, 4, p. 591-596
Publication: Research - peer-review › Journal article – Annual report year: 2003

Tutte’s Spring Theorem
Thomassen, C. 2002
Publication: Research - peer-review › Report – Annual report year: 2002

Decomposing a planar graph into an independent set and a 3-degenerate graph
Publication: Research - peer-review › Journal article – Annual report year: 2001

3-connected Planar Graphs Uniquely Embed in the Sphere
Thomassen, C. & Richter, B. 2001
Publication: Research - peer-review › Report – Annual report year: 2001

Applications of Tutte Cycles
Thomassen, C. 2001
Publication: Research - peer-review › Report – Annual report year: 2001

Challenges for the 21st Century, International Conference on Fundamental Sciences: Mathematics and Theoretical: Chromatic graph theory
Publication: Research - peer-review › Book – Annual report year: 2001

Classification of Locally 2-connected Compact Metric Spaces
Thomassen, C. 2001
Publication: Research - peer-review › Report – Annual report year: 2001

The Erdos-Posa property for odd cycles in graphs of large connectivity
Thomassen, C. 2001 In : Combinatorica. 21, 2, p. 321-333
The Locally Connected Compact Metric Spaces Embeddable in the Plane
Thomassen, C. 2001
Publication: Research - peer-review › Report – Annual report year: 2001

Totally odd K₄-subdivisions in 4-chromatic graphs
Thomassen, C. 2001 In : Combinatorica. 21, 3, p. 217-443
Publication: Research - peer-review › Journal article – Annual report year: 2001

Chromatic roots and hamiltonian paths
Publication: Research - peer-review › Journal article – Annual report year: 2000

A short list color proof of Grotzsch's theorem
Publication: Research - peer-review › Report – Annual report year: 2000

Coloring triangle-free graphs with fixed size
Publication: Research - peer-review › Journal article – Annual report year: 2000

Decomposing a planar graph into an independent set and a 3-degenerate graph
Publication: Research - peer-review › Report – Annual report year: 2000

The color space of a graph
Jensen, T. R. & Thomassen, C. 2000 In : Journal of Graph Theory. 34, 3, p. 234-245
Publication: Research - peer-review › Journal article – Annual report year: 2000

The rendezvous number of a symmetric matrix and a compact metric space
Publication: Research - peer-review › Journal article – Annual report year: 2000

Chromatic roots and hamiltonian paths
Publication: Research - peer-review › Report – Annual report year: 1999

Highly connected sets and the excluded grid theorem
Publication: Research - peer-review › Journal article – Annual report year: 1999

On the Nelson unit distance coloring problem
Publication: Research - peer-review › Journal article – Annual report year: 1999

Parity, cycle space, and K₄-subdivisions in graphs
Publication: Research - peer-review › Report – Annual report year: 1999

Parity, cycle space, and K₄-subdivisions in graphs
Thomassen, C. 1999 In : London Mathematical Society Lecture Notes. 267, p. 223-237
Publication: Research - peer-review › Journal article – Annual report year: 1999
The color space of a graph
Publication: Research - peer-review › Report – Annual report year: 1999

The Erdos-Posa property for odd cycles in graphs of large connectivity
Publication: Research - peer-review › Report – Annual report year: 1999

Two-coloring the edges of a cubic graph such that each monochromatic component is a path of length at most 5
Thomassen, C. 1999 In : Journal of Combinatorial Theory. Series B. 75, 1, p. 100-109
Publication: Research - peer-review › Journal article – Annual report year: 1999

Finite Metric Spaces of Strictly Negative Type
Publication: Research - peer-review › Journal article – Annual report year: 1998

Independent dominating sets and a second Hamiltonian cycle in regular graphs
Publication: Research - peer-review › Journal article – Annual report year: 1998

On the Hadwiger-Nelson unit distance coloring problem
Publication: Research - peer-review › Report – Annual report year: 1998

The rendezvous number of a symmetric matrix and a compact connected metric space
Publication: Research - peer-review › Report – Annual report year: 1998

Totally odd K4-subdivisions in 4-chromatic graphs
Publication: Research - peer-review › Report – Annual report year: 1998

A simpler proof of the excluded minor theorem for higher surfaces
Publication: Research - peer-review › Journal article – Annual report year: 1997

Chords of longest cycles in cubic graphs
Publication: Research - peer-review › Journal article – Annual report year: 1997

Color-critical graphs on a fixed surface
Publication: Research - peer-review › Journal article – Annual report year: 1997

Coloring graphs with fixed genus and girth
Publication: Research - peer-review › Journal article – Annual report year: 1997

Dirac's conjecture on K5-subdivisions
Publication: Research - peer-review › Journal article – Annual report year: 1997
On the complexity of finding a minimum cycle cover of a graph
Publication: Research - peer-review › Journal article – Annual report year: 1997

On the number of cycles in 3-connected cubic graphs
Publication: Research - peer-review › Journal article – Annual report year: 1997

Relations between crossing numbers of complete graphs and complete bipartite graphs
Publication: Research - peer-review › Journal article – Annual report year: 1997

The genus problem for cubic graphs
Publication: Research - peer-review › Journal article – Annual report year: 1997

The zero-free intervals for chromatic polynomials of graphs
Thomassen, C. 1997 In : Combinatorics, Probability and Computing. 6, p. 497-506
Publication: Research - peer-review › Journal article – Annual report year: 1997

Coloring Graphs and maps on surfaces
Publication: Research › Journal article – Annual report year: 1996

Directed Cycles with two Chords and Strong Spanning Directed Subgraphs with few Arcs
Publication: Research - peer-review › Journal article – Annual report year: 1996

K5-subdivisions in Graphs
Publication: Research - peer-review › Journal article – Annual report year: 1996

On the Number of Hamiltonian Cycles in Bipartite Graphs
Publication: Research - peer-review › Journal article – Annual report year: 1996

Projects:

Flows and Colourings
Langhede, R. M., Thomassen, C., Gørtz, I. L. & Rotenberg, E.
01/01/2018 → 31/12/2020
Project: PhD

Graph Coloring and Decomposition
Lyngsie, K. S., Thomassen, C. & Gørtz, I. L.
01/08/2016 → 31/07/2019
Project: PhD

Matching and Compression of Strings with Automata and Word Packing
01/03/2014 → 14/06/2017
Project: PhD
Chromatic Graph Theory
Perrett, T., Thomassen, C., Fischer, P., Jackson, W. B. & Kundgen, A.
01/10/2013 → 16/08/2017
Project: PhD

Decomposition of Graphs
Merker, M., Thomassen, C., Gertz, I. L., Bang-Jensen, J. & Barat, J.
01/09/2013 → 23/11/2016
Project: PhD

Aspects of the Tutte Polynomial of a Graph
Ok, S., Thomassen, C., Fischer, P., Bang-Jensen, J. & Jackson, W. B.
01/10/2012 → 30/09/2015
Project: PhD

Central digraphs
Leander, G. & Thomassen, C.
01/01/2010 → 01/01/2011
Project

Spanning trees in cubic graphs
Thomassen, C. & Cameron, P.
01/01/2008 → 31/12/2009
Project

Graphs on higher surfaces
Thomassen, C.
30/01/2006 → 31/12/2009
Project

Thomas Britz
Thomassen, C.
05/05/2004 → 31/10/2005
Project

Chromatic numbers and graph decomposition
Thomassen, C.
01/01/2004 → 01/01/2014
Project

Diskret matematik
Thomassen, C.
17/12/2003 → 31/12/2006
Project

Deming Li
Thomassen, C.
20/05/2003 → 30/06/2004
Project

Janos Barat
Thomassen, C.
10/03/2003 → 28/02/2005
Project
Diskret matematik
Thomassen, C.
12/02/2001 → 30/09/2004
Project

The structure of triangle-free graphs
Thomassen, C.
01/05/1999 → …
Project

Combinatorial Differential Geometry
Markvorsen, S., Hjorth, P. G. & Thomassen, C.
01/01/1996 → …
Project

Cycles in Graphs
Thomassen, C. & Aldred, R.
01/01/1996 → 31/12/1998
Project

Graphs on Surfaces
Thomassen, C. & Mohar, B.
01/01/1996 → …
Project