## Publications of James G. Oxley

## Books and edited books

1. Matroid Theory, Oxford University Press, New York, 1992 (532 pages).
2. Matroid Theory (edited with J.E. Bonin and B. Servatius), Proc. AMS-IMS-SIAM Joint Summer Research Conference on Matroid Theory, Contemporary Mathematics 197, Amer. Math. Soc, Providence, 1996 (418 pages).
3. Matroid Theory, Second edition, Oxford University Press, New York, 2011 (704 pages).

## Refereed papers, book chapters

1. (with L.R. Matthews) Infinite graphs and bicircular matroids, Discrete Math. 19 (1977), 61-65.
2. Colouring, packing and the critical problem, Quart. J. Math. Oxford Ser. (2) 29 (1978), 11-22.
3. Cocircuit coverings and packings for binary matroids, Math. Proc. Camb. Phil. Soc. 83 (1978) 347-351.
4. Infinite matroids, Proc. London Math. Soc. (3) 37 (1978) 259-272.
5. On a packing problem for infinite graphs and independence spaces, J. Combin. Theory Ser. B 26 (1978), 123-130.
6. (with D.J.A. Welsh) On some percolation results of J.M. Hammersley, J. Appl. Probability 16 (1979), 526-540.
7. On cographic regular matroids, Discrete Math. 25 (1979), 89-90.
8. A generalization of a covering problem of Mullin and Stanton for matroids, Combinatorial Mathematics VI (A.F. Horadam and W.D. Wallis eds.) Lecture Notes in Math. 748, Springer-Verlag, Berlin, 1979, pp. 92-97.
9. On a covering problem of Mullin and Stanton for matroids, Aequationes Math. 19 (1979), 118 and 20 (1980), 104-112.
10. (with J.H. Mason) A circuit covering result for matroids, Math. Proc. Camb. Phil. Soc. 87 (1980), 25-27.
11. (with T.H. Brylawski) Several identities for the characteristic polynomial of a combinatorial geometry, Discrete Math. 31 (1980), 161-170.
12. On Hartfiel and Maxson's definition of connected sets of a matroid, $J$. Combin. Theory Ser. B 28 (1980), 249-250.
13. On 3-connected matroids, Canad. J. Math. 33 (1981), 20-27.
14. On connectivity in matroids and graphs, Trans. Amer. Math. Soc. 265 (1981), 47-58.
15. On matroid connectivity, Quart. J. Math. Oxford Ser. (2) 32 (1981), 193208.
16. (with T.H. Brylawski) The broken-circuit complex: its structure and factorizations, Europ. J. Combin. 2 (1981), 107-121.
17. On a matroid generalization of graph connectivity, Math. Proc. Camb. Phil. Soc. 90 (1981), 207-214.
18. (with D.G. Kelly) Asymptotic properties of random subsets of projective spaces, Math. Proc. Camb. Phil. Soc. 91 (1982), 119-130.
19. On Crapo's beta invariant for matroids, Studies in Appl. Math. 66 (1982), 267-277.
20. (with K. Prendergast and D. Row) Matroids whose ground sets are domains of functions, J. Austral. Math. Soc. Ser. A 32 (1982), 380-387.
21. A note on half-planar geometries, Period. Math. Hungar. 13 (1982), 137139.
22. (with D.G. Kelly) Threshold functions for some properties of random subsets of projective spaces, Quart. J. Math. Oxford Ser. (2) 33 (1982), 463469.
23. On some extremal connectivity results for graphs and matroids, Discrete Math. 41 (1982), 181-198.
24. On the numbers of bases and circuits in simple binary matroids, Europ. J. Combin. 4 (1983), 169-178.
25. On a matroid identity, Discrete Math. 44 (1983), 55-60.
26. Threshold distribution functions for some random representable matroids, Math. Proc. Camb. Phil. Soc. 95 (1984), 335-347.
27. On minor-minimally-connected matroids, Discrete Math. 51 (1984), 63-72.
28. (with T. Asano, T. Nishizeki, and N. Saito) A note on the critical problem for matroids, Europ. J. Combin. 5 (1984), 93-97.
29. On the intersections of circuits and cocircuits in matroids, Combinatorica 4 (1984), 187-195.
30. (with D.G. Kelly) On random representable matroids, Studies in Appl. Math. 71 (1984), 181-205.
31. On singleton 1-rounded sets of matroids, J. Combin. Theory Ser. B $\mathbf{3 7}$ (1984), 189-197.
32. Proof of a conjecture of Kahn for non-binary matroids, Combinatorica 5 (1985), 343-345.
33. On ternary transversal matroids, Discrete Math. 62 (1986), 71-83.
34. On the matroids representable over GF(4), J. Combin. Theory Ser. B 41 (1986), 250-252.
35. Graphs and series-parallel networks, Theory of Matroids (N. White ed.), Cambridge University Press, Cambridge, 1986, pp. 97-126.
36. (with Ying Cheng) On weakly symmetric graphs of order twice a prime, $J$. Combin. Theory Ser. B 42 (1987), 196-211.
37. A characterization of the ternary matroids with no $M\left(K_{4}\right)$-minor, J. Combin. Theory Ser. B 42 (1987), 212-249.
38. On nonbinary 3 -connected matroids, Trans. Amer. Math. Soc. 300 (1987), 663-679.
39. The binary matroids with no 4 -wheel minor, Trans. Amer. Math. Soc. 301 (1987), 63-75.
40. On circuit exchange properties for matroids, Europ. J. Combin. 9 (1988), 331-336.
41. (with J.P.S. Kung) Combinatorial geometries representable over GF(3) and GF (q), Graphs and Combin. 4 (1988), 323-332.
42. A characterization of certain excluded-minor classes of matroids, Europ. J. Combin. 10 (1989), 275-279.
43. The regular matroids with no 5 -wheel minor, J. Combin. Theory Ser. B 46 (1989), 292-305.
44. A note on Negami's polynomial invariants for graphs, Discrete Math. 76 (1989), 279-281.
45. (with D. Row) On fixing elements in matroid minors, Combinatorica 9 (1989), 69-74.
46. (with T.J. Reid) The smallest rounded sets of binary matroids, European J. Combin. 11 (1990), 47-56.
47. A characterization of a class of non-binary matroids, J. Combin. Theory Ser. B 49 (1990), 181-189.
48. On an excluded-minor class of matroids, Discrete Math. 82 (1990), 35-52.
49. (with S. Akkari) Some extremal connectivity results for matroids, J. Combin. Theory Ser. B 52 (1991), 301-320.
50. Ternary paving matroids, Discrete Math. 91 (1991), 77-86.
51. (with G. Whittle) A note on the non-spanning circuits of a matroid. Europ. J. Combin. 12 (1991), 259-261.
52. On minors avoiding elements in matroids, Europ. J. Combin. 12 (1991), 531-539.
53. Infinite matroids, Matroid Applications (N. White ed), Cambridge University Press, New York, 1991, pp. 73-90.
54. (with T.H. Brylawski) The Tutte polynomial and its applications, Matroid Applications (N. White ed), Cambridge University Press, New York, 1992, pp. 123-225.
55. (with C.R. Coullard), Extensions of Tutte's wheels-and-whirls theorem, J. Combin. Theory Ser. B 56 (1992), 130-140.
56. (with G.P. Whittle) Connectivity of submodular functions, Discrete Math. 105 (1992), 173-184.
57. (with D.J.A. Welsh) Tutte polynomials computable in polynomial time, Discrete Math. 109 (1992), 185-192.
58. (with B. Oporowski and R. Thomas), Typical subgraphs of 3- and 4connected graphs, J. Combin. Theory Ser. B 57 (1993), 239-257.
59. (with G.P. Whittle), On sign-representable matroids, Math. Proc. Camb. Phil. Soc. 113 (1993), 499-506.
60. (with G.P. Whittle), Tutte invariants of 2-polymatroids, Graph Structure Theory (N. Robertson and P. Seymour eds.), Contemporary Mathematics 147 (Amer. Math. Soc., Providence, 1993), pp. 9-19.
61. (with G.P. Whittle), A characterization of Tutte invariants of 2-polymatroids, J. Combin. Theory Ser. B 59 (1993), 210-244.
62. (with G.P. Whittle), Some excluded-minor theorems for a class of polymatroids, Combinatorica 13 (1993), 467-476.
63. (with S. Akkari), Some local extremal connectivity results for matroids, Combinatorics, Probability and Computing 2 (1993), 367-384.
64. (with G. Ding and B. Oporowski), On infinite antichains of matroids, J. Combin. Theory Ser. B63 (1995), 21-40.
65. (with H. Wu), On matroid connectivity, Discrete Math. 146 (1995), 321324.
66. (with G. Ding, B. Oporowski, and D. Vertigan), Unavoidable minors of large 3-connected binary matroids, J. Combin. Theory Ser. B66 (1996), 334-360.
67. (with D. Vertigan and G. Whittle), On inequivalent representations of matroids over finite fields, J. Combin. Theory Ser. B 67 (1996), 325-343.
68. Structure theory and connectivity for matroids, Matroid Theory (J. Bonin, J. Oxley and B. Servatius eds.) Contemporary Mathematics 197 (Amer. Math. Soc., Providence), 1996, pp. 129-170.
69. (with S.R. Kingan), On the matroids in which all hyperplanes are binary, Discrete Math. 160 (1996), 265-271.
70. Matroids, Graph Connections (L.W. Beineke and R.J. Wilson eds.), Oxford University Press, Oxford, 1997, pp. 100-115.
71. (with G. Ding, B. Oporowski, and D. Vertigan), Unavoidable minors of large 3-connected matroids, J. Combin. Theory Ser. B 71 (1997), 244-293.
72. A matroid generalization of a result of Dirac, Combinatorica 17 (1997), 267-273.
73. On packing 3-connected restrictions into 3-connected matroids, Discrete Math. 178 (1998), 181-198.
74. (with G. Whittle), On weak maps of ternary matroids, Europ. J. Combin. 19 (1998), 377-389.
75. (with D. Vertigan and G. Whittle), On maximum-sized near-regular and $\sqrt[6]{1}$-matroids, Graphs and Combin. 14 (1998), 163-179.
76. (with D. Row), On panelling planar graphs, Discrete Appl. Math. 81 (1998), 109-122.
77. (with J. Geelen, D. Vertigan and G. Whittle), Weak maps and stabilizers of classes of matroids, Adv. Appl. Math. 21 (1998), 305-341.
78. (with M. Lemos), On packing minors into connected matroids, Discrete Math. 189 (1998), 283-289.
79. (with M. Lemos), On removable circuits in graphs and matroids, J. Graph Theory 30 (1999), 51-66.
80. Unavoidable minors in graphs and matroids, Graph Theory and Computational Biology (Balatonlelle, 1996), Bolyai Soc. Math. Stud. 7, János Bolyai Math. Soc., Budapest, 1999, pp. 279-305.
81. (with A.D. Mills), A class of non-binary matroids with many binary minors, Discrete Math. 207 (1999), 173-187.
82. (with M. Lemos), On the 3-connected matroids that are minimal having a fixed spanning restriction, Discrete Math. 218 (2000), 131-165.
83. (with G. Whittle), On the non-uniqueness of $q$-cones of matroids, Discrete Math. 218 (2000), 271-275.
84. (with C. Semple and D. Vertigan), Generalized $\Delta-Y$ exchange and $k$ regular matroids, J. Combin. Theory Ser. B 79 (2000), 1-65.
85. (with H. Wu), Matroids and graphs with few non-essential elements, Graphs and Combin. 16 (2000), 199-229.
86. (with M. Lemos), On size, circumference and circuit removal in 3-connected matroids, Discrete Math. 220 (2000), 145-157.
87. (with M. Lemos and T.J. Reid), On the 3 -connected matroids that are minimal having a fixed restriction, Graphs and Combin. 16 (2000), 285318.
88. (with $\mathrm{H} . \mathrm{Wu}$ ), On the structure of 3-connected matroids and graphs, Europ. J. Combin. 21 (2000), 667-688.
89. (with J.F. Geelen, D.L. Vertigan, and G.P. Whittle), On the excluded minors for quaternary matroids, J. Combin. Theory Ser. B 80 (2000), 57-68.
90. (with M. Lemos), A sharp bound on the size of a connected matroid, Trans. Amer. Math. Soc. 353 (2001), 4039-4056.
91. On the interplay between graphs and matroids, Surveys in Combinatorics, 2001 (Sussex) (J.W.P. Hirschfeld ed.) London Math. Soc. Lecture Notes 288, Cambridge Univ. Press, Cambridge, 2001, pp. 199-239.
92. (with C. Semple, D. Vertigan, and G. Whittle), Infinite antichains of matroids with characteristic set $\{p\}$, Discrete Math. 242 (2002), 175-185.
93. (with J.F. Geelen, D.L. Vertigan, and G.P. Whittle), Totally free expansions of matroids, J. Combin. Theory Ser. B 84 (2002), 130-179.
94. (with D. Welsh), Chromatic, flow, and reliability polynomials: the complexity of their coefficients, Combinatorics, Probability and Computing 11 (2002), 403-426.
95. (with R. Hall, C. Semple, and G. Whittle), On matroids of branch-width three, J. Combin. Theory Ser. B 86 (2002), 148-171.
96. (with M. Lemos), On removable cycles through every edge, J. Graph Theory 42 (2003), 155-164.
97. The structure of a 3 -connected matroid with a 3 -separating set of essential elements, Discrete Math. 265 (2003), 173-187.
98. (with B. Chaourar) On series-parallel extensions of uniform matroids Europ. J. Combin. 24 (2003), 877-879.
99. (with M. Lemos), On the minor-minimal 3-connected matroids having a fixed minor, Europ. J. Combin. 24 (2003), 1097-1123.
100. (with Y.-B. Choe, A.D. Sokal, and D.G. Wagner), Homogeneous multivariate polynomials with the half-plane property, Adv. in Appl. Math. 32 (2004), 88-187.
101. (with A.B. Hobbs), William T. Tutte, 1917-2002, Notices Amer. Math. Soc. 51 (2004), 320-330.
102. (with M. Lemos), On the minor-minimal 2-connected graphs having a fixed minor, Discrete Math. 280 (2004), 77-118.
103. (with R. Hall, C. Semple, and G. Whittle), Fork-decompositions of matroids, Adv. in Appl. Math. 32 (2004), 523-575.
104. Matroidal methods in graph theory, Handbook of Graph Theory (eds. J.L. Gross and J. Yellen), CRC Press, Boca Raton, 2004, pp. 574-598.
105. (with J.F. Geelen, D.L. Vertigan, and G.P. Whittle), A short proof of non$G F(5)$-representability of matroids, J. Combin. Theory Ser. B 91 (2004), 105-121.
106. (with C. Semple and G. Whittle), The structure of the 3-separations of 3-connected matroids, J. Combin. Theory Ser. B 92 (2004), 257-293.
107. (with H. Wu), The 3-connected graphs with exactly three non-essential edges, Graphs Combin. 20 (2004), 233-246.
108. (with R. Hall and C. Semple), The structure of equivalent 3 -separations in a 3-connected matroid, Adv. in Appl. Math. 35 (2005), 123-181.
109. (with B. Beavers), On pancyclic representable matroids, Discrete Math. 305 (2005), 337-343.
110. (with M. Lemos), Matroid covering and packing with circuits through an element, J. Combin. Theory Ser. B 96 (2006), 135-158.
111. (with R. Hall and C. Semple), The structure of 3-connected matroids of path width three, Europ. J. Combin. 28 (2007), 964-989.
112. The contributions of Dominic Welsh to matroid theory, Combinatorics, Complexity, and Chance (G. Grimmett and C. McDiarmid eds.), Oxford Univ. Press, Oxford, 2007, pp.234-259.
113. (with C. Semple and G. Whittle), The structure of the 3-separations of 3-connected matroids II, Europ. J. Combin. 28 (2007), 1239-1261.
114. (with C. Semple and G. Whittle), Wild triangles in 3-connected matroids, J. Combin. Theory Ser. B 98 (2008), 291-321.
115. (with C. Semple and G. Whittle), Maintaining 3-connectivity relative to a fixed basis, Adv. in Appl. Math. 41 (2008), 1-9.
116. (with J. Aikin), The structure of crossing separations in matroids, Adv. in Appl. Math. 41 (2008), 10-26.
117. (with C. Semple and G. Whittle), A chain theorem for matroids, J. Combin. Theory Ser. B 98 (2008), 447-483.
118. (with B. Beavers), Constructive characterizations of 3-connected matroids of path width three, Europ. J. Combin. 29 (2008), 1643-1661.
119. (with N. Hine) When excluding one matroid prevents infinite antichains, Adv. in Appl. Math. 45 (2010), 74-76.
120. (with C. Chun and D. Mayhew) A chain theorem for internally 4-connected binary matroids, J. Combin. Theory Ser. B 101 (2011), 141-189.
121. (with C. Chun) Unavoidable parallel minors of regular matroids, European J. Combin. 32 (2011), 762-774.
122. (with D. Mayhew, B. Oporowski, and G. Whittle) On the excluded minors for the matroids that are either binary or ternary, European J. Combin. 32 (2011), 891-930.
123. (with C. Semple and G. Whittle) Exposing 3-separations in 3-connected matroids, Adv. in Appl. Math. 47 (2011), 463-508.
124. On bipartite restrictions of binary matroids, European J. Combin. 32 (2011), 1199-1202.
125. (with C. Semple and G. Whittle) An upgraded Wheels-and-Whirls Theorem for 3-connected matroids, J. Combin. Theory Ser. B 102 (2012), 610-637.
126. (with C. Chun and D. Mayhew) Towards a splitter theorem for internally 4-connected binary matroids, J. Combin. Theory Ser. B 102 (2012), 688700.
127. (with J. Aikin) The structure of the 4-separations in 4-connected matroids, Adv. in Appl. Math. 48 (2012), 1-24.
128. (with D. Chun and G. Whittle) Capturing matroid elements in unavoidable 3-connected minors, European J. Combin. 33 (2012), 1100-1112.
129. (with C. Chun and D. Mayhew) Constructing internally 4-connected binary matroids, Adv. in Appl. Math. 50 (2013), 16-45.
130. (with L. Lowrance. C. Semple, and D. Welsh) On properties of almost all matroids, Adv. in Appl. Math. 50 (2013), 115-124.
131. (with D. Chun and D. Mayhew) Capturing two elements in unavoidable minors of 3-connected binary matroids, Adv. in Appl. Math. 50 (2013), 155-175.
132. (with C. Semple) Constructing a 3 -tree for a 3 -connected matroid, $A d v$. in Appl. Math. 50 (2013), 176-200.
133. (with C. Chun and D. Mayhew) Towards a Splitter Theorem for internally 4-connected binary matroids III, Adv. in Appl. Math. 51 (2013), 309-344.
134. (with J. Taylor) On a class of nearly binary matroids, European J. Combin. 36 (2014), 251-260.
135. (with C. Chun and D. Mayhew) Towards a Splitter Theorem for internally 4-connected binary matroids II, European J. Combin. 36 (2014), 550-563.
136. (with C. Chun and D. Mayhew) Towards a Splitter Theorem for internally 4-connected binary matroids IV, Adv. in Appl. Math. 52 (2014), 1-59.
137. (with C. Chun and D. Mayhew) Towards a Splitter Theorem for internally 4-connected binary matroids V, Adv. in Appl. Math. 52 (2014), 60-81.
138. A matroid analogue of the theorem of Brooks for graphs, European J. Combin. 53 (2016), 45-49.
139. (with C. Semple and G. Whittle) Determining a binary matroid from its small circuits, Electron. J. Combin. 23 (2016), Paper 1.26, 7pp.
140. (with C. Semple and G. Whittle) A Wheels-and-Whirls Theorem for 3connected 2-polymatroids, SIAM J. Discrete Math. 30 (2016), 493-524.
141. (with C. Chun and D. Mayhew) Towards a Splitter Theorem for internally 4-connected binary matroids IX: The theorem, J. Combin. Theory Ser. B 121 (2016), 2-67.
142. (with C. Chun, G. Ding and D. Mayhew) Unavoidable connected matroids retaining a specified minor, SIAM J. Discrete Math. 30 (2016), 1590-1606.
143. (with K. Wetzler) The binary matroids whose only odd circuits are triangles, Adv. in Appl. Math. 76 (2016), 34-38.
144. (with C. Chun and D. Mayhew) Towards a Splitter Theorem for internally 4 -connected binary matroids VIII: small matroids, Adv. in Appl. Math. 85 (2017), 12-30.
145. (with T. Fife) Laminar matroids, European J. Combin. 62 (2017), 206-216.
146. (with Z. Gershkoff) A notion of minor-based matroid connectivity, $A d v$. in Appl. Math. 100 (2018), 163-178.
147. (with C. Chun) Towards a Splitter Theorem for internally 4-connected binary matroids VI, Adv. in Appl. Math. 101 (2018), 100-167.
148. (with B. Clark and S.H.M. van Zwam) Relaxations of GF(4)-representable matroids, Electron. J. Combin. 25 (2018), Paper 2.53, 23pp.
149. (with C. Chun) Towards a Splitter Theorem for internally 4-connected binary matroids VII, Adv. in Appl. Math. 104 (2019), 14-74.
150. (with C. Chun) Internally 4-connected binary matroids with every element in three triangles, Combinatorica, to appear.
151. (with S. Pfeil, C. Semple, and G. Whittle) Matroids with many small circuits and cocircuits, Adv. in Appl. Math., to appear.
152. A matroid extension result, SIAM J. Discrete Math., to appear.
153. (with G. Farr) The contributions of W.T. Tutte to matroid theory, 2017 MATRIX Annals, to appear.

## Other publications

1. Infinite matroids and duality, Problèmes combinatoires et théorie des graphes, Colloq. Internat. C.N.R.S. 260, C.N.R.S., Paris, 1978, pp. 325-326.
2. (with D.J.A. Welsh) The Tutte polynomial and percolation, Graph Theory and Related Topics, (J.A. Bondy and U.S.R. Murty eds.), Academic Press, New York, 1979, pp. 329-339.
3. On 3-connected matroids and graphs, Matroid Theory and Its Applications, (A. Barlotti ed.), Liguori Editore, Naples, 1982, pp. 277-288.
4. What is a matroid? Cubo Mat. Educ. 5 (2003), 179-218.
