

# J. M. S. SIMÕES-PEREIRA

J. M. S. SIMÕES-PEREIRA, portuguese and north-american dual citizen, born December 7, 1941 in Coimbra (Portugal), studied at the University of Coimbra: B.Sc. in Mathematics, 1962, Ph.D. in Pure Mathematics, 1967, M.Sc. in Surveying Engineering, 1970.

1962-1967: computer scientist at the Scientific Computer Center of the Gulbenkian Institute of Science, in Lisbon (Portugal).

1967-1969: assistant professor, 1969-1976 associate professor, at the University of Coimbra.

1977-1978: visiting associate professor at the Western Michigan University, in Kalamazoo, Michigan, USA.

Starting September 1978: associate professor (tenure track) at the City University of New York (Hunter College and Graduate Center); January 1982, promoted to full professor; September 1983, tenured full professor.

Since 1990, when he returned to Portugal for family reasons: tenured full professor at the University of Coimbra.

## MAIN SCHOLARSHIPS AND GRANTS:

1971-1972: *DAAD - Deutsches Akademisches Austauschdienst* scholarship at the Technical University of Munich (Germany);

1972-1973: scholarship of the Austrian State Department for Science and Research, *Bundesministerium für Wissenschaft und Forschung*, at the Technical University of Vienna (Austria);

December 1975-August 1977: fellowship granted by the von Humboldt Foundation, *Alexander von Humboldt Stiftung*, at the University of Hamburg (Germany).

While in the USA: received research grants from the National Science Foundation and from the Scientific Affairs Division of the North Atlantic Treaty Organization.

## EDITORIAL BOARDS:

1976-1978: Journal of Graph Theory

1981-1984: Portugaliae Mathematica

Acted as referee for the Journal of Combinatorial Theory, Discrete Mathematics, Journal of Networks, Linear and Multilinear Algebra, Canadian Mathematical Journal, Transactions of the American Mathematical Society, Mathematica Slovaca and, recently, the Turkish Journal of Mathematics. Reviewer for: Computing Reviews, Zentralblatt für Mathematik, Mathematical Reviews.

## MEMBERSHIPS:

Portuguese Mathematical Society, *SPM - Sociedade Portuguesa de Matemática*, term as vice-president in 1992-1994;

AMS - American Mathematical Society;

Mathematical Society of Hamburg, *Mathematische Gesellschaft in Hamburg*;

Former member of SIAM - Society for Industrial and Applied Mathematics;(\*)

Former senior member of IEEE - Institute of Electrical and Electronics Engineers. (\*)

[(\*): asked for release of his membership status, shortly after coming back to Portugal, during a period of extreme economic difficulties.]

## OTHER ACTIVITIES:

1992 - 1996, member of the committee who launched the International Mathematical Center, *CIM - Centro Internacional de Matemática*, with headquarters in Coimbra, an association of Portuguese Universities with Mathematics Departments and of Pure and Applied Mathematics Societies. Now with 40 institutional members and a steering scientific council formed by prestigious national and foreign mathematicians, this Center is devoted to the promotion of teaching and research activities in Mathematics in Portugal and Portuguese speaking countries.

1990-2000 taught also at ISLA, a private university in Lisbon and Leiria (Portugal).

1998-2000: chairman of the Surveying Engineering Group of the Department of Mathematics of the University of Coimbra.

## RECENT ACHIEVEMENTS:

During a long period, he was forced to slow down his research activity, although not his teaching. Recently he started writing again about Mathematics and meanwhile he has published two books: *Matemática Discreta: Tópicos de Combinatória*, 264+viii pages, Editora Luz da Vida, Coimbra, 2006 (see a review in *Gazeta de Matemática* 152 (January 2007), pages 28-30; indexed in MathSciNet); *Matemática Discreta: Grafos, Redes, Aplicações*, 603+x pages, Editora Luz da Vida, Coimbra, 2009.

## HOBBIES:

Languages: fluent in French, German, English and Portuguese (obviously!); reading ability of Spanish, Italian, Russian, Rumanian.

Photography;

Music (plays piano);

1990: Founder and vice-president of the Portuguese Union of University Professors, *SNESup - Sindicato Nacional do Ensino Superior*;

Under the pen-name Zé-Manel Polido author of a poetry book: *Amor Explorado* (ISBN: 978.972.99009.07), and of an auto-biographic essay: *Amor, Solidão e Fé* (ISBN: 978.972.99009.14);

2003: One of the founders of the publishing company *Editores Luz da Vida, Ltd.* with headquarters in Coimbra (Portugal).

You are invited to follow his blog:

*www.ze-manel-polido.blogspot.com*;

if you don't read Portuguese, go to his page at his Department site:

*www.mat.uc.pt/~siper*;

for the contents of his books, go to the site of the publisher:

*www.luz-da-vida.com.pt*.

## SCIENTIFIC PUBLICATIONS LIST

### ALGORITHMS AND RESEARCH PAPERS

1. Duas observações sobre estática do ponto material, *Gazeta da Matemática* 86/87 (1962), 29-32.
2. Algorithm 214:  $q$ -Bessel functions  $I_n(t)$ , *Communications of the Association for Computing Machinery* 6 (1963), 662. (Remark on Algorithm 214, idem 6 (1964), 349) (CA 8-73a, CA 8-1818g)
3. Algorithm 228:  $q$ -Bessel functions  $\bar{I}_n(t)$ , *Communications of the Association for Computing Machinery* 7 (1964), 295. (CA 8-1582d)
4. Algorithm 234: Poisson-Charlier polynomials [S23], *Communications of the Association for Computing Machinery* 7 (1964), 420. (CA 8-2069a, RJM 1965:4B365)
5. On the maximum value of sums of products, *Gazeta da Matemática* 94/95 (1964), 1-3. (MR 30-3052)
6. Remarque sur le théorème de Rado (with A. S. Gonçalves), *Gazeta da Matemática* 96/97 (1964), 20-21. (MR 31-5815)
7. On the Boolean matrix equation  $M' = \bigvee_{i=1}^d M^i$ , *Journal of the Association for Computing Machinery* 12 (1965), 376-382 (Corrigenda, idem 14 (1967), 419-420). (MR 34-5587; MR 38-5377, CA 9-2281, IEEE-Trans. EC 15(1) (1966) Abstract 4186).

8. Some results on the tree realization of a distance matrix, in: *Théorie des Graphes – Journées Internationales d’Étude, Rome 1966*, 383-388 (Dunod Éditeur, Paris; Gordon and Breach, New York, 1967). (MR 36-2523, RJM 1968:7B246).
9. Some comments on the traffic assignment problem, in: *Beiträge zur Theorie des Verkehrsflusses – Referate anlässlich des IV. Internationales Symposium über die Theorie des Verkehrsflusses in Karlsruhe im Juni 1968*, 220-223. (Wilhelm Leutzbach, Paul Baron, eds.) (Herausgegeben vom Bundesministerium für Verkehr, Bonn, 1969)
10. Boolean permanents, permutation graphs and products, *SIAM Journal on Applied Mathematics* 16 (1968), 1251-1254. (MR 38-3180)
11. Pseudo-symmetry, circuit-symmetry and path-symmetry of a digraph in: *Recent Progress in Combinatorics* (W. T. Tutte, ed.), 295-299 (Academic Press, New York 1969) (MR 40-5501; RJM 1971:12B638)
12. A note on the tree realizability of a distance matrix, *Journal of Combinatorial Theory* 6 (1969), 303-310 (MR 38-5650; RJM 1969:11B310).
13. Algorithm 355: An algorithm for generating Ising configurations [Z], *Communications of the Association for Computing Machinery* 12 (1969), 562. (CA 13-3478a) [NOTE: This algorithm revealed an ambiguity in the description of the then famous ALGOL 60 programming language]
14. Connectivity, line-connectivity and J-connection of the total graph, *Mathematische Annalen* 196 (1972), 48-57 (MR 45-8568; RJM 1972:9B328).
15. A note on the cycle multiplicity of line-graphs and total graphs, *Journal of Combinatorial Theory Ser. B* 12 (1972), 194-200. (MR 46-5173; RJM 1972:9B351).
16. On subgraphs as matroid cells, *Mathematische Zeitschrift* 127 (1972), 315-322. (MR 47-6522 RJM 1973:2B334)
17. Some remarks on a game with graphs (with Isabel Maria S. N. Zuzarte) *Journal of Recreational Mathematics* 6 (1) (1973), 54-60 (MR 55-2667; RJM 1973:9B399).
18. On matroids on edge sets of graphs with connected subgraphs as circuits, *Proceedings of the American Mathematical Society* 38 (1973), 503-506. (MR 47-3214; RJM 1974:1B364)

19. A note on graphs with prescribed clique and point-partition numbers, *Journal of Combinatorial Theory Ser. B* 14 (1973), 256-258. (MR 47-3257; RJM 1973:10B333).
20. Matroids, graphs and topology, in: *Proceedings of the Fifth Southeastern Conference on Combinatorics, Graph Theory and Computing* (F. Hoffman, R. A. Kingsley, R. B. Levow, R. C. Mullin, R. S. D. Thomas, eds.), 145-155 (Utilitas Mathematica, Winnipeg, Manitoba, Canada 1974): (MR 50-9635).
21. On graphs uniquely partitionable into  $n$ -degenerate subgraphs, in: *Colloquia Mathematica Societatis János Bolyai 10: Infinite and Finite Sets*, vol III, 1351-1364. (North-Holland, Amsterdam 1975). (MR 53-2758).
22. On matroids on edge sets of graphs with connected subgraphs as circuits – II, *Discrete Mathematics* 12 (1975), 55-78. (MR 54-7298; RJM 1976:2B480).
23. Subgraphs as circuits and bases of matroids, *Discrete Mathematics* 12 (1975), 79-88. (MR 52-7940; RJM 1976:2B481)
24. Just two total graphs are complementary (with Fernando Escalante), *Monatshefte für Mathematik* 81 (1976), 5-13. (MR 53-7860; RJM 1976:10B395).
25. Joins of  $n$ -degenerate graphs and uniquely  $(m, n)$ -partitionable graphs, *Journal of Combinatorial Theory Ser. B* 21 (1976), 21-29. (MR 54-7304; RJM 1977:3B425)
26. A survey of  $k$ -degenerate graphs, *Graph Theory Newsletter* 5 (6), July 1976. (MR 55-199).
27. A note on finite topologies and switching functions, *Discrete Mathematics* 18 (1977), 299-310. (MR 57-5481; RJM 1978:9B517).
28. A comment on matroidal families, in: *Colloques Internationaux CNRS – Problèmes Combinatoires et Théorie des Graphes, Orsay, Juillet 1976*, 385-387 (Éditions du CNRS, Paris 1978).(MR 81b:05031; RJM 1979:2B482)
29. Edge sets of hypergraphs with a  $B_q$ -like property and partition numbers of graphs (with Christine Palm), in: *Colloquia Mathematica Societatis János Bolyai 18: Combinatorics*, pp 793-804 (North-Holland, Amsterdam 1978). (MR 80c:05105; RJM 1979:10B384).

30. Locally  $k$ -degenerate graphs: a definition and two conjectures, *Journal für die reine und angewandte Mathematik* 299/300 (1978), 80-83 (MR 80a:05173; RJM 1979:1B606)
31. On nonhamiltonian homogeneously traceable digraphs (with J. C. Bermond and Christina M. Zamfirescu), *Mathematica Japonica* 24 (1979), 423-426. (MR 82d: 05063; RJM 1980:8B352).
32. Erdős-Hajnal well-orderings and  $n$ -degenerate graphs, *Abhandlungen aus dem mathematischem Seminar der Universität Hamburg* 50 (1980), 101-107. (MR 82b:05112; RJM 1981:4B504).
33. Submatrices of nontree-realizable distance matrices (with Christina M. Zamfirescu), *Linear Algebra and its Applications* 44 (1982), 1-17 (MR 83j: 05061; RJM 1982: 11B632)
34. A note on optimal and suboptimal digraph realizations of quasidistance matrices, *SIAM Journal on Algebraic and Discrete Methods* 5 (1984), 117-132 (MR 85i:05166).
35. On optimal embeddings of metrics in graphs (with W. Imrich and Christina M. Zamfirescu), *Journal of Combinatorial Theory Ser. B* 36 (1984), 1-15 (MR 85i:05089; RJM 1984:12B751)
36. A note on distance matrices with unicyclic graph realizations, *Discrete Mathematics* 65 (1987), 277-287. (MR 88k:05136)
37. A note on convexity and submatrices of distance matrices, *Linear and Multilinear Algebra* 20 (1987), 363-366. (MR 88f:05080).
38. Underlying graph and total length of optimal realizations of variable distance matrices, *Graphs and Combinatorics* 3 (1987), 383-393. (MR 88i:05172; RJM 1988:3B642).
39. An optimality criterion for graph embeddings of metrics, *SIAM Journal on Discrete Mathematics* 1 (1988), 223-229. (MR 90c:05077)
40. An optimality criterion and the total length of the graph realization of a distance matrix, *Annals of the New York Academy of Sciences (Proceedings of the 3rd International Conference on Combinatorics, June 1985)* 555 (1989), 383-393. (MR 90k:05137).

41. A flavor of matroids, graphs and optimal job assignment problems in Operations Research, in: *Combinatorics, Computing and Complexity* (Du Dingzhu and Hu Guoding, editors), 173-190 (Science Press, Beijing, Kluwer Academic Publishers, Dordrecht, Boston, London 1989).
42. An algorithm and its role in the study of optimal graph realizations of distance matrices, *Discrete Mathematics* 79 (1990), 299-312.
43. An algorithm for tree-realizability of distance matrices (with Vladimir Batagelj and Tomaž Pisanski), *International Journal of Computer Mathematics* 34 (1990), 171-176.
44. Matroidal Families of Graphs, in: *Matroid Applications*, vol. III, 91-105 (Neil White, editor) (Cambridge University Press, Cambridge 1992).

#### RESEARCH PROBLEMS

1. Advanced Research Problem 5606 (on series), *The American Mathematical Monthly* 75 (1968), 686.
2. Advanced Research Problem 5623 (on series), *The American Mathematical Monthly* 75 (1968), 911.
3. A research problem on determinants, in: *Colloquia Mathematica Societatis János Bolyai 10: Infinite and Finite Sets*, vol III, 1554 (North-Holland/American Elsevier, 1975).
4. A reconstruction problem in three formulations, in: *Colloquia Mathematica Societatis János Bolyai 18: Combinatorics*, vol. II, 1211-1212 (North-Holland, Amsterdam 1978).

#### OF PROFESSIONAL OR CULTURAL INTEREST

1. Letter to the Editor of "Consensus?", *SIAM News* 6 (August 1973), 3.
2. Letter to the Editor of *Notices of the American Mathematical Society* 20 (October 1973), 310.
3. Computer Science Curriculum 78, *Notices of the American Mathematical Society* 26 (May 1979), 309-310.
4. Operations Research, *Notices of the American Mathematical Society* 26 (June 1979), 401-402.

5. Refereeing papers, *Notices of the American Mathematical Society* 27 (January 1980), 75-76.
6. A reader's response to a previous column, *Interface – the computer education quarterly* 2 (1980), 12-14.
7. Proposta de Criação de uma Associação de Cientistas Portugueses Residentes no Estrangeiro, Comunicação apresentada em 1980-12-04 ao congresso "A Universidade Portuguesa nos anos 80" realizado no Instituto Superior Técnico, em Lisboa.
8. Entre a Geometria e a Matemática Discreta, in: *Estudos de Topologia e Geometria, em homenagem ao Prof. Doutor José Bayolo Pacheco de Amorim*, pág. 69-79 (Departamento de Matemática da Universidade de Coimbra, Coimbra, 1991).
9. Tem a Matemática Impacto Cultural?, *ZACUTO – Revista Científica* (ISLA – Instituto Superior de Leiria), 2/3 (1999), 87-93.

#### THESES, LECTURE NOTES AND BOOKS

No mention is given to lecture notes for exclusive use in the classroom.

1. *Sobre um Problema da Teoria dos Grafos*, Coimbra, 1966. (Tese de Doutoramento, Ph.D. Thesis)
2. *Tópicos sobre Teoria dos Grafos*, O Instituto CXXXII (1968), 1-89. (Tese para provas de Agregação, Equivalent to the german Habilitationsschrift)
3. *Graphs, Matroids and Topology* (Lecture Notes), Instituto de Física e Matemática, Lisboa-4, 1974.
4. *Introdução à Topologia* (Notas de Curso), Departamento de Matemática da Universidade de Coimbra, Coimbra, 1999 (*iii*+191 páginas).
5. *Matemática Discreta: Tópicos de Combinatória*, Editora Luz da Vida, Coimbra, 2006 (ISBN: 978.972.99009.69), (*viii*+264 páginas).
6. *Matemática Discreta: Grafos, Redes, Aplicações*, Editora Luz da Vida, Coimbra, 2009 (ISBN: 978.972.99009.76) (*x*+603 páginas).

#### CO-AUTHORS LIST:

V. Batagelj, J. C. Bermond, F. Escalante, A. S. Gonçalves, W. Imrich, C. Palm, T. Pisanski, C. Zamfirescu, I. Zuzarte.

## CITATIONS LIST

The following is a list of citations which we know of. Note that some of these authors refer to papers published decades earlier and that the list does not include citations by the author of his own papers or by his students in thesis, reports and the like. In the code "*n* cited" the number *n* is the number of the cited paper in the Publications List. ("*n*-Books" refers to the list of books)

### CITATIONS APPEARING IN THESES AND PREPRINTS

1. Narsingh Deo: NASA - Technical Report 32-1413 Supplement 1: *An extensive English Language Bibliography on Graph Theory and its Applications*, Jet Propulsion Laboratory, Pasadena, California, April 15, 1971. (7, 10, 11, 12 cited)
2. Matthias Middendorf: *Symmetric matroids and connectivity properties of graphs* Universitaet Koeln, 1991.  
ftp://ftp.zpr.uni-koeln.de/pub/paper/zpr 91-104.ps.gz 19931022 (18 cited)
3. Encontro de Cientistas Portugueses Residentes no Estrangeiro. Discursos e Reflexões, in *Cadernos Universidade Hoje, Série: Momentos*, Universidade de Aveiro, 1996 (ISBN 972-8021-20-8), pág. 14 (Actas do congresso sobre o mesmo tema realizado em Aveiro em Dezembro de 1995, patrocinado pelo Instituto Rodrigues Lapa). (Cites number 7 from the list of professional interest but the author's name is not given).
4. George Christopher: *Structure and Applications of Totally Decomposable Metrics*, Ph.D. Thesis, Carnegie Mellon University, May 1997. (43 is cited with an erroneous title!)  
mat.gsia.cmu.edu/trick/christofer.ps
5. Mathias Schacht: *A Turan theorem for random graphs*, Master Thesis, Emory University, 2002. (26 cited)
6. Alice Lesser: *Extremal optimal realizations*, Masters Thesis, U.U.D.M. Report 2007:53 ISSN 1101-3591 Uppsala University. (34, 35 cited)
7. Alice Lesser: *Optimal and Hereditarily Optimal Realizations of Metric Spaces*, Ph.D. Thesis, Uppsala University, 2007-11-30. (12, 35 cited)

## CITATIONS IN BOOKS OR BOOK CHAPTERS

1. Horst Sachs, Heinz-Jürgen Voss, Hansjoachim Walther, editors: *Beiträge zur Graphentheorie*, Vorgetragen auf dem Internationalen Kolloquium in Manebach (DDR) vom 9.-12. Mai 1967, B. G. Teubner Verlagsgesellschaft, Leipzig, 1968. (8 cited)
2. Frank A. Haight: *Transportation Research*, Science Direct (on-line service), 1970. (9 cited).
3. Wai-Kai Chen: *Applied Graph Theory*, North-Holland, 1971. (12 cited)
4. A. T. Berztiss: *Data Structures - Theory and Practice*, 2nd edition, Academic Press, New York, 1975. (7 cited)
5. Domenic J. A. Welsh: *Matroid Theory*, Academic Press, 1976. (16, 18 cited)
6. Michael Capobianco, John C. Molluzzo: *Examples and Counterexamples in Graph Theory*, North-Holland, New York, 1978. (14, 15 cited)
7. Rudolf Halin: *Graphentheorie I*, Wissenschaftliche Buchgesellschaft, Darmstadt, 1980. (26 cited)
8. Rudolf Halin: *Graphentheorie II*, Wissenschaftliche Buchgesellschaft, Darmstadt, 1981. (16 cited)
9. Mehdi Behzad, Gary Chartrand, and Linda Lesniak-Foster: *Graphs & Digraphs*, Wadsworth International Group, Belmont, California, 2nd printing, 1981. (26 cited)
10. Richard Guy: Graphs and Games, in: *Selected Topics in Graph Theory 2* (L. W. Beineke, R. J. Wilson, eds.) Academic Press 1983, 269-295. (17 cited)
11. Nancy B. Stern, Robert A. Stern: *Computers in Society*, Englewood Cliffs - Prentice Hall, 1983. (The paper they cite is the number 6 in the list of papers of professional interest).
12. B. G. Mirkin, S. N. Rodin: *Graphs and Genes* (Translated from the Russian by H. Lynn Bens), Springer Verlag, 1984. (8 cited)
13. A. A. Zykov: *Osnovy Teorii Grafov* (em Russo, in Russian), Nauka, Moscovo, 1987. (12, 33, 35 cited)

14. S. V. Yushmanov: *Metody Teorii Grafov v Evolyutsii. Postroenie Filogeneticheskikh Skhem*, (in russian) in *Matematicheskaya Kibernetika i ee Prilozheniya k Biologii* (L. V. Krushinskoy, S. V. Yablonskov, O. B. Lupanova, eds.) University of Moscow (1987), 101-140. (12, 33, 34, 35 cited)
15. Fred Buckley e Frank Harary: *Distance in Graphs*, Addison Wesley Publishing Company, Reading – Massachusetts and London, 1990. (12, 33, 34, 39, 42 cited)
16. Erich Prisner: *Graph Dynamics*, Longman Group Limited, Essex, England, 1995. (14, 24 cited)
17. Geerte de Soete, J. Douglas Carroll: Tree and other network models for representing proximity data, pg. 157-198, in: *Clustering and Classification* (Phipps Arabie, Lawrence J. Hubert, Geerte de Soete, editors) World Scientific Publishers, River Edge, New Jersey, 1996. (12 cited)
18. Dieter Jungnickel: *Graphs, Networks and Algorithms*, Algorithms and Computation in Mathematics - Volume 5, Springer 1999. (35, 39 cited)
19. Stanley Gill Williamson: *Combinatorics for Computer Science*, Computer Science Press, Rockville, Maryland, 1985 (Dover republication, 2002). (22 cited)
20. Elwyn R. Berlekamp, John Horton Conway, Richard K. Guy: *Winning ways for your mathematical plays*, 2003. (Chapter 17 Spots and Sprouts, pg. 606-607: 17 cited).
21. Béla Bollobás: *Extremal Graph Theory*, Academic Press, London, 1978 (Dover republication, 2004). (19, 21 cited)
22. Ming-Yang Kao (editor-in-chief): *Encyclopedia of Algorithms*, Springer, 2008. (43 cited)
23. Domingos Moreira Cardoso, Jerzy Szymanski, Mohammad Rostami: *Matemática Discreta: Combinatória, Teoria dos Grafos, Algoritmos*, Escolar Editora, Lisboa, 2009. (Number 5 from the list of books cited)
24. Andreas Dress, Karl-Ernst Biebler, Dietmar Cieslik, Georg Füllen, Martin Haase, Bernd Jäger: *Phylogenetic Combinatorics*, Shaker Publishing Company, Greifswald (Germany), 2009 (ISBN 978.3.8322.7481.8). (33 cited)

25. Charles Semple, Mike Steel: *Phylogenetics*, Oxford Lecture Series in Mathematics and its Applications 24, Oxford University Press, Oxford and New York, 2009 (reprinted from a first edition in 2003). (12 cited)

#### CITATIONS IN JOURNALS AND PROCEEDINGS

1. John G. Herriot: An ambiguity in the description of ALGOL 60, *Communications of the Association for Computing Machinery* 12 (October 1969), 581. (13 cited).
2. Jean-Loup Baer: Matrice de connexion minimale d'une matrice de précedence donnée, *Revue Française d'Informatique et de Recherche Operationnelle* 3 (1) (1969), 65-73. (7 cited)
3. James Turner, William H. Kautz: A survey of progress in graph theory in the Soviet Union, *SIAM Review* 12 (1970) *Supplement*. (12 cited)
4. Michael Capobianco: On characterizing tensor composite graphs, *Annals of the New York Academy of Sciences* 175 (1970), 80-84. (10 cited)
5. Jean-Loup Baer, Robert Caughey: Segmentation and optimization of programs from cyclic structure analysis, in: *AFIPS Joint Computer Conference*, Proc. of the November 16-18, 1971 Fall joint computer conference, Las Vegas, Nevada, pg. 23-36 (1971), ACM, New York. (7 cited)
6. Wilfried Imrich, E. Stotzki: Ob optimalnii vlojeniax metrik b grafi, *Dokladi Akademii Nauk* 200 (1971), 279-281. (12 cited)
7. W. Imrich, E. Stotzki: Ob optimalnii vlojeniax metrik b grafi, *Sibirskii Matemat. Zurnal* 13 (1972), 558-565. (12 cited)
8. A. N. Patrinos, Seifollah Louis Hakimi: The distance matrix of a graph and its tree realization, *Quarterly of Applied Mathematics* 30 (1972-73), 255-269. (8 cited)
9. L. Lovász: Connectivity in digraphs, *Journal of Combinatorial Theory* 15 (1973), 174-177. (11 cited)
10. V. P. Kozyrev: Graph Theory, *Journal of Mathematical Sciences* (Springer) 2(5) (Sept. 1974), 489-519. (Tradução da língua russa da *Itogi Nauki i Tekhniki - Seriya Teoriya Veroyatnostei Matematicheskaya, Statistika, Teoreticheskaya Kibernetika* 10 (1972), 25-74) (11 cited)

11. Takashi Hamada, Izumi Yoshimura: Traversability and connectivity of the middle graph of a graph, *Discrete Mathematics* 14 (1976), 247-256. (14 cited)
12. William S. Bowie: Applications of Graph Theory in Computer Systems, *International Journal of Parallel Programming (Springer)* 5(1) (March 1976), 9-31. (7 cited)
13. W. Imrich: On metric properties of tree-like spaces, *Beiträge zur Graphentheorie und deren Anwendungen - International Colloquium*, Oberdorf - DDR (1977), 129-156. (12 cited)
14. B. Bollobás, A. G. Thomson: Uniquely partitionable graphs, *Journal of the London Mathematical Society Series 2* - 16(3) (1977), 403-410. (19 cited)
15. John Mitchem: Maximal  $k$ -degenerate graphs, *Utilitas Mathematica* 11 (May 1977), 101-106. (19, 21, 25 cited)
16. Laurence R. Matthews, James G. Oxley: Infinite graphs and bicircular matroids, *Discrete Mathematics* 19 (1977), 61-65. (16, 20 cited)
17. Laurence R. Matthews: Bicircular matroids, *Quarterly Journal of Mathematics Oxford (2)* 28 (1977), 213-228. (18 cited)
18. Laurence R. Matthews: Matroids from directed graphs, *Discrete Mathematics* 24 (1978), 47-61. (16, 18, 22 cited)
19. Laurence R. Matthews: Properties of the bicircular matroids, *Problèmes Combinatoires et Théorie des Graphes* (Orsay 1976), Colloques Internationaux du CNRS, Paris 1978, 289-290. (16 cited)
20. Michel Lorea: Matroïdes sur les ensembles d'arêtes d'hypergraphes, *Cahiers Centre d'Études Recherche Operationnelle* 20(2) (1978), 127-136. (22, 23 cited)
21. Thomas Andreae: Matroidal families of finite connected nonhomeomorphic graphs exist, *Journal of Graph Theory* 2 (1978), 149-153. (16, 18, 22, 23 cited)
22. John Mitchem: On the genus of graphs with Lick-White number  $k$ , *Proceedings of the American Mathematical Society* 69(2) (May 1978), 349-354. (19, 21, 25 cited)

23. Laurence R. Matthews: Infinite subgraphs as matroid circuits, *Journal of Combinatorial Theory Ser. B* 27 (1979), 260-273. (16, 18, 22 cited)
24. Michel Lorea: On matroidal families, *Discrete Mathematics* 28 (1979), 103-106. (22, 23, 28 cited)
25. Rüdiger Schmidt: On the existence of uncountably many matroidal families, *Discrete Mathematics* 27 (1979), 93-97. (16, 18, 23 cited)
26. O. V. Borodin: Proof of Simões-Pereira's conjecture on locally  $k$ -degenerate graphs, *J. für die Reine und Angewandte Mathematik* 319 (1980), 23-24. (30 cited)
27. Z. Skupien: Degrees in homogeneously traceable graphs, *Combinatorics 79 - 1 (M. Deza, Ivo G Rosenberg, editors) - Annals of Discrete Mathematics* 8 (1980), 185-188. (31 cited)
28. J. C. Bermond, C. Thomassen: Cycles in digraphs - a survey, *Journal of Graph Theory* 5(1) (1981) 1-43. (31 cited)
29. H. Colonius, H. H. Schulze: Tree structures for proximity data, *British Journal of Mathematical and Statistical Psychology* 34 (1981), 167-180. (12 cited)
30. Andrew Thomason: Critically partitionable graphs II, *Discrete Mathematics* 41 (1982), 67-77. (Cita 21, 26 cited)
31. Manfred Walter: Construction of matroidal families by partly closed sets, *Discrete Mathematics* 41 (1982), 309-315. (16, 18, 22, 23, 28 cited)
32. Thomas Zaslavsky: Signed graphs, *Discrete Applied Mathematics* 4 (1982), 47-74. (22 cited)
33. Thomas Zaslavsky: Bicircular geometry and the lattice of forests of a graph, *Quarterly Journal of Mathematics Oxford (2)* 33 (1982), 493-511. (16 cited)
34. N. Iwahori: On some algorithm on the number of branch points and their degrees starting from the distance matrix of a given tree, *Scientific Papers College Arts Sciences University Tokyo* 33 (1983), no.2, 63-81. (8 cited)
35. S. V. Yushmanov: Representation of a tree with  $p$  hanging vertices by  $2p - 3$  elements of its distance matrix, *Mathematical Notes* (Springer)

- 35(6) (June 1984) 460-465 (Translation from *Matematicheskie Zametki* 35(6) (June 1984) 877-887). (12 cited)
36. H. Hashimoto: Transitive reduction of a nilpotent boolean matrix, *Discrete Applied Mathematics* 8 (1984), 51-61. (7 cited)
37. V. Průš: A characterization of matroidal families of multigraphs, *Discrete Mathematics* 52 (1984), 101-105. (16, 18, 22 cited)
38. Andreas W. M. Dress: Trees, tight extensions of metric spaces and the cohomological dimension of certain groups: A note on combinatorial properties of metric spaces, *Advances in Mathematics* 53 (1984), 321-402. (12, 33 cited)
39. D. K. Wagner: Connectivity in bicircular graphs, *Journal of Combinatorial Theory Ser. B* 39 (1985), 308-324. (16, 22 cited)
40. Hans-Jürgen Bandelt, Henry Martin Mulder: Distance-hereditary graphs, *Journal of Combinatorial Theory Ser. B* 41 (1986), 182-208. (12 cited)
41. C. Payan: Graphes équilibrés et arboricité rationnelle, *European Journal of Combinatorics* 7 (1986), 263-270. (16 cited)
42. Hans-Jürgen Bandelt, A. M. Dress: Reconstructing the shape of a tree from observed dissimilarity data, *Advances in Applied Mathematics* 7 (1986), 309-343. (12, 33 cited)
43. D. Tuyttens, J., Teghem, Jr: Théorie des Matroides et Optimisation Combinatoire, *Belgian Journal of Operations Research, Statistics and Computer Science* 26-1 (1986), 29-62. (22, 23 cited)
44. Eric Howe, Charles R. Johnson, James Lawrence: The structure of distance in networks, *Networks* 16(1) (1986) 87-106. (12 cited)
45. Terry A. McKee: Dual properties within graph theory, *Fundamenta Mathematica* 128 (1987), 91-97. (22 cited)
46. Thomas Zaslavsky: The biased graphs whose matroids are binary, *Journal of Combinatorial Theory Ser. B* 42 (1987), 337-347. (16 cited)
47. T. Hamada, I. Sato, I. Yoshimura: Cycle multiplicities of the line graphs of complete bipartite graphs, *TRU Mathematics* 23 (1987), 117-136. (15 cited)

48. Arthur M. Hobbs: Computing edge-toughness and fractional arboricity, in: R. Bruce Richter (editor) *Graphs and Algorithms - Proceedings of a Summer Research Conference held June 28 - July 4, 1987*, Contemporary Mathematics vol. 89, pg. 89-106, AMS, IMS, SIAM, 1987. (29 cited)
49. Ingo Althöfer: On optimal realizations of finite metric spaces by graphs, *Discrete and Computational Geometry* 3 (1988), 103-122. (12, 33, 34, 35 cited)
50. Peter Winkler: The complexity of metric realizations, *SIAM Journal on Discrete Mathematics* 1 (1988), 552-559. (12, 33, 35 cited)
51. Donald K. Wagner: Equivalent factor matroids of graphs, *Combinatorica* 8 (4) (1988), 373-377. (22 cited)
52. Geoff Whittle: A generalisation of the matroid lift construction, *Transactions of the American Mathematical Society* 316(1) (Nov. 1989), 141-158. (16, 22 cited)
53. R. Shull, J. B. Orlin, A. Shuchat, M. L. Gardner: The structure of bases in bicircular matroids, *Discrete Applied Mathematics* 23 (1989), 267-283. (16, 22 cited)
54. Thomas Zaslavsky: Biased graphs I. Bias, balance and gains, *Journal of Combinatorial Theory Ser. B* 47 (1989), 32-52. (16, 22 cited)
55. J. C. Culbertson, P. Rudnicki: A fast algorithm for constructing trees from distance matrices, *Information Processing Letters* 30 (1989), 215-220. (33 cited)
56. Tamas Lengyel: Some graph problems and the realizability of metrics by graphs, *Congressus Numerantium* 78 (1990), 245-254 (MR 92h:05051). (33, 35, 36, 37 cited)
57. Hans-Jürgen Bandelt: Recognition of tree metrics, *SIAM Journal on Discrete Mathematics* 3 (1990), 1-6. (12, 33, 34 cited)
58. Thomas Zaslavsky: Biased graphs whose matroids are special binary matroids, *Graphs and Combinatorics* 6 (1990), 77-93. (16 cited)
59. Gil Kalai: Symmetric matroids, *Journal of Combinatorial Theory Ser. B* 50 (1990), 54-64. (16, 23 cited)

60. Thomas Zaslavsky: Biased graphs. II. The three matroids, *Journal of Combinatorial Theory Ser. B* 51 (1991), 46-72. (16, 22 cited)
61. Collette R. Coullard, John G. del Greco, Donald K. Wagner: Representations of bicircular matroids, *Discrete Applied Mathematics* 32 (1991), 223-240. (16, 22 cited)
62. V. P. Kozyrev, S. V. Yushmanov: Representations of graphs and networks (coding, layouts and embeddings), *Journal of Mathematical Sciences* (Springer) 61(3) (Sept. 1992), 2152-2194. (Tradução da língua russa da *Itogi Nauki i Tekhniki - Seriya Teoriya Veroyatnostei Matematicheskaya, Statistika, Teoreticheskaya Kibernetika* 27 (1990), 129-196) (12 cited)
63. Collette R. Coullard, John G. del Greco, Donald K. Wagner: Recognizing a class of bicircular matroids, *Discrete Applied Mathematics* 43 (1993), 197-215. (16, 22 cited)
64. M. Frick: A survey of mfccolorings, in: John Gordon Gimbel, John W. Kennedy, Louis V. Quintas (editors) *Quo vadis graph theory?: A source book for challenges and directions* (pg. 45-58), North-Holland, 1993. (19 cited)
65. A. Rucinski: From random graphs to graph theory, in: John Gordon Gimbel, John W. Kennedy, Louis V. Quintas (editors) *Quo vadis graph theory?: A source book for challenges and directions* (pg. 265-273), North-Holland, 1993. (16 cited)
66. Ingo Althöfer, Gautam Das, David Dobkin, Deborah Joseph, José Soares: On sparse spanners of weighted graphs, *Discrete and Computational Geometry* 9 (1993), 81-100. (12 cited)
67. Thomas Zaslavsky: Biased graphs. III. Chromatic and dichromatic invariants, *Journal of Combinatorial Theory Ser. B* 64 (1995), 17-88. (16 cited)
68. D. A. Holton, Dingjun Lou, K. L. McAvaney:  $n$ -Extendability of line graphs, power graphs, and total graphs, *Australasian Journal of Combinatorics* 11 (1995), 215-222. (14 cited)
69. Andreas Dress: Some mathematical problems arising in molecular bioinformatics; the concept of bioinformatics, in: Charles J. Colbourn, Ebadollah S. Mahmoodian (editors): *Combinatorics Advances - Proceedings of the 25th Annual Iranian Conference in Tehran* (pg. 91-109) Kluwer Academic Publishers, 1995. (12 cited).

70. Mieczyslaw Borowiecki, J. Ivanko, Peter Mihók, Gabriel Semanišin: Sequences realizable by maximal  $k$ -degenerate graphs, *Journal of Graph Theory* 19 (1995) 117-124. (26 cited)
71. Olivier Gascuel, Denise Levy: A reduction algorithm for approximating a (nonmetric) dissimilarity by a tree distance, *Journal of Classification* 13 (1996), 129-155. (12 cited)
72. Z. Filáková, Peter Mihók, G. Semanišin: A note on maximal  $k$ -degenerate graphs, *Mathematica Slovaca* 47 (1997), 489-498. (26 cited)
73. Mieczyslaw Borowiecki, Izak Broere, Marietjie Frick, Peter Mihók, Gabriel Semanišin: A survey of hereditary properties of graphs, *Discussiones Mathematicae Graph Theory* 17(1) (1997), 5-50. (25 cited)
74. Izak Broere, Marietjie Frick, Gabriel Semanišin: Maximal graphs with respect to hereditary properties, *Discussiones Mathematicae Graph Theory* 17(1) (1997), 51-66. (21, 26 cited)
75. Jozef Bucko, Marietjie Frick, Peter Mihók, Roman Vasky: Uniquely partitionable graphs, *Discussiones Mathematicae Graph Theory* 17(1) (1997), 103-113. (21, 25 cited)
76. Sacha C. Varone: Trees related to realizations of distance matrices, *Discrete Mathematics* 192 (1998), 337-346. (12 cited)
77. P. Avella, S. Benati, L. Cànovar Martinez, K Dalby, e outros: Some personal views on the current state of locational analysis, *European Journal of Operational Research* 194 (2) (1998), 269-287. (39 cited)
78. Peter Mihók, Jozef Bucko, Margit Voigt: On uniquely partitionable planar graphs, *Discrete Mathematics* 191 (1998), 149-158. (21 cited)
79. Zhi-Hong Chen, Ying-Qiang Kuang, Hong-Jian Lai: Connectivity of cycle matroids and bicircular matroids, *Ars Combinatoria* 52 (1999), 239-250. (16, 44 cited)
80. Charles Semple, Mike Steel: Tree representations of non-symmetric group-valued proximities, *Advances in Applied Mathematics* 23 (1999), 300-321. (12, 33, 35 cited)
81. Fan Chung, Mark Garretz, Ronald Graham, David Shallcross: A summary of distance realization problems with applications to Internet tomography, *Journal of Computer and System Sciences* 63 (3) (2001), 432-448. (12, 33, 39, 42 cited)

82. E. A. Smolenskii, On coding the structural formulas of organic compounds, *Doklady Chemistry* 380 (1-3) (Sept. 2001), 237-241. (33, 35 cited)
83. Peter Mihók: Minimal reducible bounds for the class of k-degenerate graphs, *Discrete Mathematics* 236 (2001) 273-279. (26 cited)
84. A. M. Revyakin: Matroids, *Journal of Mathematical Sciences* (Springer) 108(1) (Jan. 2002), 71-130. (44 cited)
85. Peter Mihók: On the existence of uniquely partitionable graphs, *Electronic Notes on Discrete Mathematics* 11 (2002) 485-490. (21 cited)
86. T. Feder, A. Meyerson, R. Motwani, L. O'Callaghan, R. Panigrahy: Representing graph metrics with fewest edges, in: *Lecture Notes in Computer Science* vol. 2607/2003, pg. 355-366, Springer 2003 (42 cited)
87. François Denis, Olivier Gascuel: On the consistency of the minimum evolution principle of phylogenetic inference, *Discrete Applied Mathematics* 127 (2003), 63-77. (12 cited)
88. L. Pachter, D. Speyer: Reconstructing trees from subtree weights, *Applied Mathematics Letters* 17 (2004), 615-621. (12 cited)
89. Dillon Mayhew: Inequivalente representations of bias matroids, *Combinatorics, Probability and Computing* 14 (2005), 567-583. (16, 22 cited)
90. A. Dress, Katherine T. Hubert, Alice Lesser, Vincent Moulton: Hereditarily optimal realizations of consistent metrics, *Annals of Combinatorics* 10 (1) (2006), 63-76. (33, 35 cited)
91. Sacha Varone: A constructive algorithm for realizing distance matrices, *European Journal of Operations Research* 174 (2006), 102-111. (12, 34, 36, 42 cited)
92. Jack Koolen, Alice Lesser, Vincent Moulton: Concerning the relationship between realizations and tight spaces of finite metrics, *Discrete and Computational Geometry* 38 (3) (2007), 615-614. (34 cited)
93. Alain Hertz, Sacha Varone: A note on tree realizations of matrices, *RAIRO Operations Research* 41 (2007), 361-366. (12 cited)
94. Thomas Zaslavsky: Biased graphs VII Contrabalance and antivoltages, *Journal of Combinatorial Theory Ser. B* 97 (6) (Nov. 2007), 1019-1040. (16, 22 cited)

95. Alain Hertz, Sacha Varone: The metric bridge partition problem, *Journal of Classification* 24(2) (2007), 235-249. (35 cited)
96. Alain Hertz, Sacha Varone: The metric cutpoint partition problem, *Journal of Classification* 25 (2008), online only for the moment. (35 cited)
97. Conor Fahen, Serkan Hosten, Nathan Krieger, Leslie Timpe: Least square methods for equidistant tree reconstruction, *ARXIV eprint arXiv0808.3979* 2008 arXiv 0808.3979 F, SAO/NASA ADS arXiv e-prints, [http://adsabs.harvard.edu\(abs\)2008](http://adsabs.harvard.edu(abs)2008). (12 cited)
98. Andreas W. M. Dress, Katherine T. Hubert, Jacobus Koolen, Vincent Moulton: Cut points in metric spaces, *Applied Mathematics Letters* 21(6) (June 2008), 545-548. (33 cited)
99. Andreas W. M. Dress, Katherine T. Hubert, Jacobus Koolen, Vincent Moulton: Compatible decomposition and block realizations of finite metrics, *European Journal of Combinatorics* 29(7) (October 2008), 1617-1633. (35 cited)
100. Jozef Bucko: Note on uniquely partitionable graphs (abstract), HEREDITARNIA - 12th Workshop devoted to hereditary properties of graphs, held in Herl'any (Slovakia), May 31 - June 5, 2009. ([http://ics.upjs.sk/~semanisin/hereditarnia em 2009.08.09](http://ics.upjs.sk/~semanisin/hereditarnia_em_2009.08.09)) (25 cited)
101. Jack Koolen, Alice Lesser, Vincent Moulton: Optimal realizations of generic five-point metrics, *European Journal of Combinatorics* 30(5) (2009), 1164-1171. (35 cited)
102. Susan van Aardt, Frank Bullock, Joanna Górska, Zdzislaw Skupien: On detour homogeneous digraphs, *Discrete Mathematics* Article in Press, to appear in print in 2009, now online DOI:10.1016/j.disc.2008.10.016 (31 cited)

## PLAGIARIZED PAPERS

Mahimarajan Adhikary published a paper *The connectivity of squares of box graphs*, *Math. Balkanica* (N.S.) 20 (2006), 379-385, with L. K. Pramanik as co-author. Angeles Carmona, writes in his review (see Section 05C of *Mathematical Reviews*, August 2007 code MR2269739 (2007h:05087): *The paper copies results that were obtained long ago... The results presented can be found in J. M. S. Simões-Pereira, Math. Annalen* 196 (1972), 48-57. (Paper number 14 in our list). He explains: *For example, Lemmas 2.7, 2.8 and 2.9 are exact copies of Lemmas 1, 2 and 3 in the paper by Simões-Pereira cited above; even more, the phrasing before the lemmas is the same.*

The news appeared in MATH GATEWAY of *The Mathematical Association of America*, section *Math in the News*, January 28, 2008, saying *Prominent Mathematician in India Accused of Plagiarism*. It is said that *Adhikary holds prestigious positions in Indian mathematics: President of the Mathematics Division of the Indian Science Congress and Secretary of the Calcutta Mathematical Society.*

(See <http://mathgateway.maa.org/do/ViewMathNews>).

According to the *Times of India*, dated January 2, 2008, the University of Calcutta had started court proceedings against Adhikary.

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