GEORGE P. H. STYAN — A CELEBRATION

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Abstract

The first time I met George Styan was in July 2004 in Lisbon when he was on his way to the 11th ILAS Conference in Coimbra.

But George had already been in Portugal before and I learned how much he was fond of Conventual, a very fine and nice old style restaurant in Lisbon. Then I also learned that George really is an appreciator of good food and a very well-educated wine drinker. With this detail in common it was really easy to become a good friend with George.

Since then we met a number of times, the most significant of which was at the time of the 17th IWMS held in Tomar, Portugal, in 2008.

Before this event, during a short stay of George and Evelyn in Lisbon, we had the opportunity to go to some nice spots like Sintra and to hang around a few nice places near Lisbon and even to attend a Leonard Cohen concert, together with some friends.

Actually, even more than good food and a good wine, and more than a good mathematical challenge, George enjoys the company of his family and his friends. We may even say that more than Mathematics, it is his family and his friends that play and have always played a central role in his life. Everybody knows well how much he cares about Evelyn, the great woman behind the great man, and also everybody knows the looks in George's face when he meets the ones he cares about.

Inevitably, besides addressing some of George's honors and also his scientific work and his interest in mathematics related stamps, it is based on a number of pictures, either taken by the author or by other friends and a couple of them even taken by George himself, that this little contribution to the celebration of George Styan's 75th birthday will be indeed more a celebration of the way George enjoys and nurtures the company of the ones he loves.

Keywords: Cochran's theorem, distribution, linear algebra, quadratic forms, Schur complements.

2010 Mathematics Subject Classification: 62-01, 62J99.

1. CHEERS GEO(RGE)!

The first time I met George Styan was in July 2004 in Lisbon when he was on his way to the 11th ILAS Conference in Coimbra.

But George had already been in Portugal before and I learned how much he was fond of Conventual, a very fine and nice old style restaurant in Lisbon. Then I also learned about George's taste for good food and good wine. With this detail in common it was really easy to become a good friend with George.

Since then we met a number of times, the most significant of which was at the time of the 17th IWMS held in Tomar, Portugal, in 2008.

Before this event, during a short stay of George and Evelyn in Lisbon, we had the opportunity to go to some nice spots like Sintra, to hang around a few nice places near Lisbon and even to attend a Leonard Cohen concert, together with some friends.

It was at that time that when going for some beer, which we decided to 'convert' into a nice white wine that I took the picture in Figure 1 at Hennessy's in downtown Lisbon, not far from the Tagus river.

Figure 1 – George Styan and Evelyn at Hennessy's in Lisbon (2008)

By that time I had no idea that this picture came out so appropriately. It not only seems that indeed George is having one of his bright ideas (look at the lamp that seems to sit on top of his head) but also the saying that 'behind a great man there is always a great woman' seems to be most adequate.

That wherever George is there is cheer and joy is well documented in the pictures in Figure 2, which I had a chance to take during a boat trip at Castelo-do-

Bode dam, near Tomar, at the time of IWMS'08, with his friends Mike Perlman and T.W. Anderson.

Figure 2 – Triptic: Michael Perlman, T. W. Anderson, George Styan
right before lunch on a boat at Castelo-do-Bode dam
(Portugal – IWMS'08)

George's almost mythic appreciation of good table makes it easy to picture good moments around a table, and as documented in Figure 3, it almost seems that he carefully chooses his friends as people with the same interests.

Figure 3 – From left to right in a clockwise manner:
The author - George Styan - T. W. Anderson - Michael Perlman
lunch time on the boat at Castelo-do-Bode dam
(Portugal – IWMS'08)

The capacity George has to change things, for the better, with his presence is well documented in the group picture for IWMS'07 in Figure 4. Nothing remains the same after his arrival and actually when we look at the first picture we feel that there was something, more precisely, someone missing.
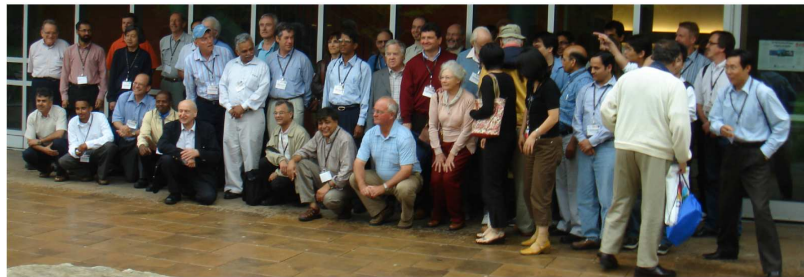
Figure 4 – IWMS'07 - Windsor, Canada
The group picture, before, during and after the arrival of George Styan

Everybody who knows George also knows about his interest in recent years for stamps related with mathematical aspects. This was one of the reasons why in IWMS'08 the organizers presented him with a stamp from the Portuguese post depicting him in his nice outfit from the promotion for his honorary degree from the University of Tampere in 2000, with some of the most celebrated buildings from Tomar in the background. As such I though most adequate to try to build a gallery of some of the existing stamps depicting great mathematicians of all times, from several countries around the world.

This gallery, for sure incomplete, is in Figures 5–7. Many of the stamps were taken from the extraordinary web-site http://www.mlahanas.de/Stamps /Data/Mathematician/.

Actually, besides the stamp where George is depicted, other pictures would give very good stamps as the ones in Figure 8.
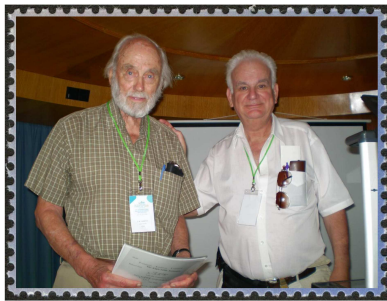
Figure 5 – Stamps of great Mathematicians: A-D

Figure 6 – Stamps of great Mathematicians: D-L

Figure 7 – Stamps of great Mathematicians: L-W

T.W. Anderson & George Styan
on a boat at C.-do-Bode dam

George Styan, Roman Zmyslony
and T.W. Anderson

the author,
Ravindra Bapat,
Stephen Haslett,
Ejaz Ahmed,
Bertie,
George Styan
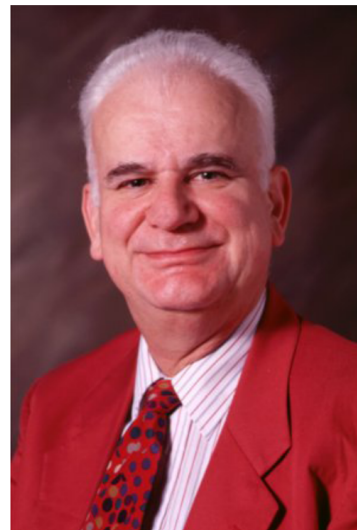*before dinner in Tomar*

Figure 8 – Three pictures from IWMS'08 which would give good stamps

George also got more important honors than the stamp awarded to him at IWMS'08, as his Doctor *Honoris Causa* degree in Tampere, Finland (2000) and his nomination as Honorary Member of the Statistical Society of Canada, in June 2009, documented in Figure 8.

As the statement of his own University, The McGill University, concerning this latter award says: "Honorary Membership of the Statistical Society of Canada is awarded to a statistical scientist of outstanding distinction who has contributed to the development of the statistical sciences in Canada", and as the statement from the Statistical Society of Canada itself says, this award is "for his deep research at the interface of Matrix Theory and Statistics; for his remarkable editorial work within Canada and beyond, his mentoring of graduate and postdoctoral students; and for innumerable other scholarly and professional contributions to the international statistical community".

Doctor *Honoris Causa*   Honorary Member
University of Tampere   Statistical Society of Canada
Finland (2000)   June, 2009

Figure 9 – George P. H. Styan honors

2.   Family and friends

For George, we may say that maybe even more important than Mathematics, it is his family and his friends that play and have always played a central role in his life. How much George cheers Evelyn may be seen from the form he keeps her

heavily guarded as it may be seen in Figure 10. Actually this is a magnification of a larger picture taken from Evelyn in front of the Queluz palace, near Lisbon, which is in Figure 11. In this Figure we may also see Evelyn, now guarded by a much better looking body-guard.

Figure 10 – Evelyn heavily guarded

Evelyn in front of Queluz palace　　　　　　　　*Evelyn and the author*

Figure 11 – Evelyn in Queluz palace, near Lisbon (2008)

And how much George cheers and enjoys his friends company may be easily seen from his looks when we find him around those he loves. Indeed even better looks than when he is enjoying good food together with a good wine, which are a must for an extremely well-educated wine drinker and appreciator. In Figures 12–15 we may see George enjoying the company of a number of his closer friends, being this the opportunity to apologize for all those other many who remained not depicted in any of these pictures.

The first picture in Figure 12 was taken by Soile Puntanen and it surely would make one the most beautiful stamps ever, not needing any further framing. We

would say that only Soile is really missing there, but I think we may all easily imagine her with all care, love and enjoyment taking such a beautiful picture.

Simo Puntanen, George Styan and Evelyn at a restaurant in St. John's, Canada

Bernardete Ribeiro, Alexander Kovacec Evelyn, George Styan and Soile Puntanen Coimbra, Portugal, 2008

Figure 12 – George, Evelyn and their friends I.

In the second picture in Figure 12 we have a good take of Soile, but since we cannot have it all, now Simo Puntanen was taking the photo.

Simo is also the author of both pictures in Figure 13, depicting George and Evelyn Styan at two different dinner times in 2008.

In Figure 14 we have George together with a number of some of his friends. In the second picture in Figure 14 we have Stephen Haslett, George Styan and Jeffrey Hunter and for the speed they are moving at it is easy to guess where they are heading to: dinner, at a small restaurant in Tomar garden by the time of IWMS'08.

T.W. Anderson, George Styan Evelyn Styan and Dorothy Anderson dinner at IWMS'08

the author, Evelyn Styan Soile Puntanen and George Styan dinner time in Lisbon, 2008

Figure 13 – George, Evelyn and their friends II.

Shuangzhe Liu, Augustyn Markiewicz
George Styan and Yogendra Chaubey
at the time of IWMS'07, Windsor

Stephen Haslett, George Styan
and Jeffrey Hunter
heading for dinner (IWMS'08)

Figure 14 – George and some of his closer friends.

3.   GEORGE P. H. STYAN'S EDITORIAL POSITIONS AND PUBLICATIONS

George P. H. Styan has a long and honorable career in Mathematics. He has served in the Editorial Boards of many scientific journals and published ten books and over one hundred sixty papers. In the following pages we attempt to compile an almost complete listing of his editorial positions and publications (books and papers) up to now.

Many thanks to Simo Puntanen and George Styan himself for the help in gathering the information.

3.1.   Editorial Positions

Editor–in–Chief

– *Chance* Magazine: vol. 9, no. 1 (1996)–vol. 11, no. 4 (1998);

– *Forthcoming Events/Activités Prévues*: supplement to *The Canadian Journal of Statistics/La Revue Canadienne de Statistique*: 1979–1984;

– *Image–The Bulletin of the International Linear Algebra Society*: no. 13 (July 1994)–no. 30 (April 2003) jointly with Steven J. Leon: no. 13 (July 1994)–no. 18 (Winter/Spring 1997, with Hans Joachim Werrner: no. 25 (October 2000)–no. 30 (April 2003);

– *The IMS Bulletin*: vol. 16 (1987)–vol. 21 (1992);

– *International Calendar of Statistical Events*: In *The IMS Bulletin*, vol. 16 (1987)–vol. 25 (1996); *Supplément à La Gazette des Sciences Mathématiques du Québec*: 1977–1978;

– *Statistical Science Association of Canada/Association Canadienne de Science Statistique Newsletter*: 1972.

Abstracting Editor:
   – *Current Index to Statistics:* 2000–to date; pub. American Statistical Association (Alexandria, Virginia) & Institute of Mathematical Statistics (Beachwood, Ohio), ISBN 1–931586–15–2, ISSN 1094–7469. [Bibliography of over 250,000 items referencing the literature in statistics and probability.]

Managing Editor:
   – *The Canadian Journal of Statistics/La Revue Canadienne de Statistique:* 1977–1984, 1999–2009, vol. 5, no. 2 (June 1977)–vol. 12, no. 2 (June 1984), vol. 27, no. 1 (March 1999)–vol. 36, no. 4 (December 2008); Editor: McGill University Reports from the Department of Mathematics and Statistics (ISSN 0824–4944): 1982–1984 (jointly with William O. J. Moser), 2002–to date;

Associate Editor
   – *Far East Journal of Mathematics:* 2007–to date;
   – *Journal of Inequalities in Pure and Applied Mathematics:* 1999–2005;
   – *Journal of Statistics & Management Systems:* 2005–to date;
   – *Mathematical Inequalities & Applications:* 1997–to date ;
   – *Communications in Statistics*: 1977–2000;
   – *Journal of Statistical Planning and Inference*: 1992–2000;
   – *Istatistik–Journal of the Turkish Statistical Association*: 1995–1999 ;
   – *Linear Algebra and its Applications*: 1986–2004;
   – *SIAM Journal on Matrix Analysis and Applications*: 1995–1997;
   – *SSC Liaison–The Newsletter of the Statistical Society of Canada*: 1987–1999 & Production Editor: 2005–2007.

Book Reviews Editor
   – *The Canadian Journal of Statistics*: 1985–1988;

Corresponding Editor
   – *The IMS Bulletin*: 1993–2000.

Joint Editor
   – (with Alan J. Wright), *European Aviation News*: February 1958–1963;
   – (with Leslie F. Sarjeant), *Overseas Civil Register News*: 1956–1957;
   – *European Aviation News*: January 1958;

Advisory Editor
   – *Chance* Magazine: 1999–2007;

Member of the International Editorial Board
   – Research Group on Mathematical Inequalities and Applications (RGMIA), Melbourne, Australia: 1999– .

3.2.   Special Issues Guest Edited

1. Ingram Olkin, C. Radhakrishna Rao & George P. H. Styan, eds. (1985–1986). First Special Issue on Linear Algebra and Statistics: *Linear Algebra and its Applications*, vol. 67 (June 1985), 279 pp.; vol. 70 (October 1985), 369 pp. & vol. 82 (October 1986), pp. 143–279.
2. Michael D. Perlman, Friedrich Pukelsheim & George P. H. Styan, eds. (1990). Second Special Issue on Linear Algebra and Statistics: *Linear Algebra and its Applications*, vol. 127 (January 1990), viii + 656 pp.
3. Jerzy K. Baksalary & George P. H. Styan, eds. (1992). Third Special Issue on Linear Algebra and Statistics: *Linear Algebra and its Applications*, vol. 176 (November 1992), viii + 289 pp. [Includes papers presented at the International Workshop on Linear Models, Experimental Designs & Related Matrix Theory: Tampere, Finland, August 1990.]
4. Jerzy K. Baksalary & George P. H. Styan, eds. (1993). Special Issue, Papers Presented at the International Workshop on Linear Models, Experimental Designs, and Related Matrix Theory. *Journal of Statistical Planning and Inference*, vol. 36, no. 2 & 3 (August/September 1993), ii + pp. 127–432. [Zbl 783.00013; 24 research papers presented at the Workshop held in Tampere, Finland, 6–8 August 1990.]
5. Friedrich Pukelsheim, George P. H. Styan, Henry Wolkowicz & Ion Zaballa, eds. (1994). Special Issue Honoring Ingram Olkin. *Linear Algebra and its Applications*, vol. 199 (March 1994), viii + 445 pp. [Special Issue in Honor of Ingram Olkin's 70th Birthday.]
6. Jeffrey J. Hunter, Simo Puntanen & George P. H. Styan, eds. (1994). Fourth Special Issue on Linear Algebra and Statistics: *Linear Algebra and its Applications*, vol. 210 (October 1994), ii + 273 pp.
7. R. B. Bapat, George P. H. Styan & Hans Joachim Werner, eds. (1996). Fifth Special Issue on Linear Algebra and Statistics: In Celebration of the 75th Birthday of C. R. Rao. *Linear Algebra and its Applications*, vol. 237/238 (April 1996), vii + 592 pp. [MR1382661.]
8. R. William Farebrother, Simo Puntanen, George P. H. Styan & Hans Joachim Werner, eds. (1997). Sixth Special Issue on Linear Algebra and Statistics. *Linear Algebra and its Applications*, vol. 264 (October 1997), ix + 506 pp. [Zbl 881.00016.]
9. R. William Farebrother, Simo Puntanen, George P. H. Styan & Hans Joachim Werner, eds. (1999). Seventh Special Issue on Linear Algebra and Statistics. *Linear Algebra and its Applications*, vol. 289 (March 1999), iv + 344 pp. [Includes papers from the Sixth International Workshop on Matrices and Statistics, Istanbul, Turkey, August 16–17, 1997. MR 99i:00019, Zbl 928.00027.]

10. Simo Puntanen, George P. H. Styan & Hans Joachim Werner, eds (2000). Eighth Special Issue on Linear Algebra and Statistics. *Linear Algebra and its Applications*, vol. 321 (15 December 2000), xi + 412 pp. [MR1799634, Zbl 0972.00016.]

11. Simo Puntanen, George P. H. Styan & Hans Joachim Werner, eds. (2002). Ninth Special Issue on Linear Algebra and Statistics. *Linear Algebra and its Applications*, vol. 354 (15 October 2002), xii + 291 pp. [MR1927644.]

12. Simo Puntanen, George P. H. Styan & Hans Joachim Werner, eds. (2004). Tenth Special Issue (Part 1) on Linear Algebra and Statistics. *Linear Algebra and its Applications*, vol. 388 (1 September 2004), 400 pp.

13. Simo Puntanen, George P. H. Styan & Hans Joachim Werner, eds. (2005). Tenth Special Issue (Part 2) on Linear Algebra and Statistics. *Linear Algebra and its Applications*, vol. 410 (15 November 2005), 290 pp.

14. S. Ejaz Ahmed, Jeffrey J. Hunter, George P. H. Styan & Götz Trenkler, eds. (2009). Special Issue devoted to selected papers presented at the 16th International Workshop on Matrices and Statistics (IWMS–2007): Windsor, Ontario, Canada, June 1-3, 2007. *Linear Algebra and its Applications*, vol. 430, no. 10, pp. 2563–2834 (1 May 2009).

3.3. Publications

I. Books

1. T. W. Anderson, Somesh Das Gupta & George P. H. Styan (1972, 1977). *A Bibliography of Multivariate Statistical Analysis*. Oliver & Boyd, Edinburgh, Scotland, x+642 pp., ISBN 0–05–002548–1. Reprinted by Halsted Press, New York, 1972, ISBN 0–470–02650–2 & by Robert E. Krieger, Huntington, New York, 1997, ISBN 0–88275–477–7. [MR56: 1585; Zbl 263.62001, 421.62033.]

2. Simo Puntanen & George P. H. Styan (1988). *A Personal Guide to the Literature in Matrix Theory for Statistics and Some Related Topics*. Report A 205, Dept. of Mathematical Sciences, University of Tampere, iii+157 pp., December 1988, ISBN 951–44–2385–2, ISSN 0356–3134.

3. George P. H. Styan, ed. (1990). *Abstracts of Papers Presented in Uppsala Sweden, 13–18 August 1990 (2nd World Congress of the Bernoulli Society for Mathematical Statistics and Probability, 53rd Annual Meeting of the Institute of Mathematical Statistics)*. Bernoulli Society for Mathematical Statistics and Probability & Institute of Mathematical Statistics, 217 pp.

4. George P. H. Styan, ed. (1990). *The Collected Papers of T. W. Anderson: 1943–1985. With commentaries*. John Wiley & Sons, New York, vol. 1:

xlvi + 825 pp., vol. 2: pp. i–viii & 827–1681, ISBN 0–471–62442–5. [MR 91j: 01064.]

5. George P. H. Styan, ed. (1998). *Three Bibliographies and a Guide*. Prepared for the Seventh International Workshop on Matrices and Statistics, in celebration of T. W. Anderson's 80th birthday (Fort Lauderdale, Florida, December 1998). 100 pp. [Includes: A bibliography on the distribution of quadratic forms in normal variables, with special emphasis on the Craig–Sakamoto theorem and on Cochran's theorem (with Mylène Dumais), pp. 1–9; A bibliography on the Laguerre–Samuelson inequality and on some related inequalities (with Shane T. Jensen), pp. 10–16; A third bibliography on the Frucht–Kantorovich inequality and on some related inequalities (with Gülhan Alpargu), pp. 17–26.

6. Erkki P. Liski, Jarmo Niemelä, Jarkko Isotalo, Simo Puntanen, and George P. H. Styan, eds. (2006). *Festschrift for Tarmo Pukkila on his 60th Birthday*, Dept. of Mathematics, Statistics and Philosophy, University of Tampere, 383 pp., ISBN–13:978–951–44–6620–5.

7. Simo Puntanen, George P. H. Styan & Jarkko Isotalo (2011) *Matrix Tricks for Linear Statistical Models: Our Personal Top Twenty*. Springer, xvii+ 486 pages. ISBN: 978–3–642–10472–5. Expanded version of *Matrix Tricks for Linear Statistical Models: Our Personal Top Sixteen*, Third Edition. Report A 363, Dept. of Mathematics, Statistics & Philosophy, University of Tampere, Tampere, Finland, 207 pp., December 2005. [Original version by Simo Puntanen: Report A 302, May 1996; 2nd edition by Simo Puntanen & George P. H. Styan, Report A 330, Dept. of Mathematics, Statistics & Philosophy, University of Tampere.]

8. Yongge Tian & George P. H. Styan. *Rank Equalities and Inequalities Related to Generalized Inverses and Their Applications*. Research monograph in progress.

9. Songgui Wang, George P. H. Styan, Zhongzhen Jia & Yongge Tian. *Inequalities in Matrix Theory*. Translation from the Chinese (Anhui Educational Press, viii + 340 pp., 1994, ISBN 7–5336–1386–4), in progress.

10. Simo Puntanen, George P. H. Styan & Jarkko Isotalo (2012). *Formulas Useful for Linear Regression Analysis and Related Matrix Theory: It's Only Formulas But We Like Them*, v+125 pages. Springer. To appear.

11. Simo Puntanen, George P. H. Styan & Jarkko Isotalo (2012). *Estimation, Prediction and Testing in Linear Models*, c. 125 pages. Springer. To appear.

II. Papers in peer–reviewed Journals and Collections/Edited Books

1. George P. H. Styan & Harry Smith, Jr. (1964). Markov chains applied to marketing. *Journal of Marketing Research*, 1 (1), 50–55. [Translated into

Spanish: "Cadenas de Markov aplicadas a marketing", mimeo, 13 pp.]

2. G. E. Sharpe & G. P. H. Styan (1965). Circuit duality and the general network inverse. *IEEE Transactions on Circuit Theory*, CT–12, 22–27. [Abstract: *IEEE Spectrum*, 2 (1965), 135.]

3. G. E. Sharpe & G. P. H. Styan (1965). A note on the general network inverse. *IEEE Transactions on Circuit Theory*, CT–12, 632–633.

4. Robert L. Wolf, Milton Mendlowitz, Julia Roboz, George P. H. Styan, Peter Kornfeld & Alfred Weigl (1966). Treatment of hypertension with spironolactone: double–blind study. *Journal of the American Medical Association*, 198, 1143–1149. [Abstract: *Biometrics*, 23 (1967), 607.]

5. G. E. Sharpe & G. P. H. Styan (1967). A note on equicofactor matrices. *Proceedings of the IEEE*, 55, 1226–1227.

6. George P. H. Styan (1970). Notes on the distribution of quadratic forms in singular normal variables. *Biometrika*, 57, 567–572. [RZMat 1971#5 V134, STMA 14:128, Zbl 264:62006.]

7. Frank Harary, Benjamin Lipstein & George P. H. Styan (1970). A matrix approach to nonstationary chains. *Operations Research*, 18, 1168–1181. [MR 43:8127, Zbl 229:60045.]

8. G. Marsaglia & G. P. H. Styan (1972). When does rank(A+B) = rank(A) + rank(B)? *Canadian Mathematical Bulletin*, 15, 451–452. [MR 47:236, Zbl 252:15002.]

9. Stanley I. Grossman & George P. H. Styan (1972). Optimality properties of Theil's BLUS residuals. *Journal of the American Statistical Association*, 67, 672–673. [MR 52:7030, Zbl 265:62020.]

10. Theophilos Cacoullos & George P. H. Styan (1973). A bibliography of discriminant analysis. In *Discriminant Analysis and Applications: Proceedings of the NATO Advanced Study Institute on Discriminant Analysis and Applications*, Athens, Greece, June 8–20, 1972 (Theophilos Cacoullos, ed.), Academic Press, New York, pp. 375–434. [MR 57:17959, Zbl 297:62037.]

11. Julian Keilson & George P. H. Styan (1973). Markov chains and M–matrices: inequalities and equalities. *Journal of Mathematical Analysis and Applications*, 41, 439–459. [MR 47:3422, Zbl 255:15016.]

12. Gene H. Golub & George P. H. Styan (1973). Numerical computations for univariate linear models. *Journal of Statistical Computation and Simulation*, 2, 253–274. [MR 51:11840, Zbl 283:62062.]

13. George P. H. Styan (1973). Hadamard products and multivariate statistical analysis. *Linear Algebra and its Applications*, 6, 217–240. [MR 47:6724, Zbl 255:15002.]

14. George P. H. Styan (1973). When does least squares give the best linear unbiased estimate? In *Multivariate Statistical Inference: Proceedings of the*

Research Seminar at Dalhousie University, Halifax, Nova Scotia, March 23–25, 1972 (D. G. Kabe & R. P. Gupta, eds.), North–Holland, Amsterdam & American Elsevier, New York, pp. 241–246. [MR 47:7861, 52:9518; Zbl 264:62028.]

15. Gene H. Golub & George P. H. Styan (1973). Some aspects of numerical computations for linear models. In *Proceedings of the Computer Science and Statistics Seventh Annual Symposium on the Interface: Iowa State University*, Ames, October 18–19, 1973 (William J. Kennedy, ed.), Statistical Numerical Analysis and Data Processing Section, Statistical Laboratory, Iowa State University, Ames, Iowa, pp. 189–192.

16. Norman J. Pullman & George P. H. Styan (1973). The convergence of Markov chains with nonstationary transition probabilities and constant causative matrix. *Stochastic Processes and Their Applications*, 1, 279–285. [MR 53:14665, Zbl 263:60026.]

17. D. A. S. Fraser, Irwin Guttman & George P. H. Styan (1974). Serial correlation and distributions on the sphere. *Communications in Statistics Series A–Theory & Methods*, 5, 97–118. [MR 56:13460, Zbl 341:62023.]

18. George Marsaglia & George P. H. Styan (1974). Equalities and inequalities for ranks of matrices. *Linear and Multilinear Algebra*, 2, 269–292. [MR 52:5711, Zbl 297:15003.]

19. George Marsaglia & George P. H. Styan (1974). Rank conditions for generalized inverses of partitioned matrices. *Sankhyā: The Indian Journal of Statistics*, Series A, 36, 437–442. [MR 52:5699, Zbl 309:15002.]

20. C. C. Paige, George P. H. Styan & Peter G. Wachter (1975). Computation of the stationary distribution of a Markov chain. *Journal of Statistical Computation and Simulation*, 4, 173–186. [Zbl 331:60040.]

21. Monique Andrée Giguère & George P. H. Styan (1976). Comparisons between maximum likelihood and naïve estimators in a multivariate normal population with data missing on one variate. *Bulletin de l'Institut International de Statistique: Proceedings of the 40th Session (Warsaw, 1975)*, 46 (3), 303–308. [MR 58:8024, Zbl 398:62038.]

22. Timo Mäkeläinen & George P. H. Styan (1976). A decomposition of an idempotent matrix where nonnegativity implies idempotence and none of the matrices need be symmetric. *Sankhyā: The Indian Journal of Statistics*, Series A, 38, 400–403. [MR 57:12554, Zbl 412:15018.]

23. T. Papaioannou, G. P. H. Styan & L. L. Ward (1976). A comparison of BMD, SAS and SPSS. [With discussion by J. Philip Miller, James W. Frane, Jonathan B. Fry, Neal Van Eck & Stewart Robinovitz, and by Jim Goodnight, and with reply by the authors.] In *SAS.ONE: Proceedings of First International S.A.S. Users Conference: Kissimee, Florida, January 26–28, 1976* (Julian Horwich & Evey R. Horwich, eds.), S.A.S. Users

Group, Raleigh, North Carolina, pp. 361–397.

24. Warren T. Dent & George P. H. Styan (1978). Uncorrelated residuals from linear models. *Journal of Econometrics*, 7, 211–225. [MR 80m:62064, Zbl 337:62081.]

25. Monique Andrée Giguère & George P. H. Styan (1978). Multivariate normal estimation with missing data on several variates. In *Transactions of the Seventh Prague Conference on Information Theory, Statistical Decision Functions, Random Processes and of the Eighth European Meeting of Statisticians (Technical University, Prague, August 18–23, 1974)*, Academia [Publishing House of the Czechoslovak Academy of Sciences], Prague & D. Reidel, Dordrecht, vol. B, pp. 129–139. [MR 80a:62005, 80e:62037, Zbl 406:62033.]

26. Friedrich Pukelsheim & George P. H. Styan (1979). Nonnegative definiteness of the estimated dispersion matrix in a multivariate linear model. *Bulletin de l'Académie Polonaise des Sciences, Série des Sciences Mathématiques*, 27, 327–330. [MR 80j:62050, Zbl 413:62035.]

27. I. S. Alalouf & G. P. H. Styan (1979). Estimability and testability in restricted linear models. *Mathematische Operationsforschung und Statistik Series Statistics*, 10, 189–201. [MR 82g:62088, Zbl 417: 62055.]

28. Henry Wolkowicz & George P. H. Styan (1979). Extensions of Samuelson's inequality. *The American Statistician*, 33, 143–144. [MR80h:62038.]

29. I. S. Alalouf & George P. H. Styan (1979). Characterizations of estimability in the general linear model. *The Annals of Statistics*, 7, 194–200. [MR 80g:62044, Zbl 398:62053.]

30. V. Seshadri & G. P. H. Styan (1980). Canonical correlations, rank additivity and characterizations of multivariate normality. In *Analytic Function Methods in Probability Theory: Proceedings of the Colloquium on the Methods of Complex Analysis in the Theory of Probability and Statistics held at the Kossuth L. University, Debrecen, Hungary, August 29–September 2, 1977* (edited by B. Gyires), Colloquia Mathematica Societatis János Bolyai, vol. 21, János Bolyai, Budapest & North–Holland, Amsterdam, pp. 331–344. [MR 80m:60002, 81h:62089, Zbl 419:62049.]

31. Henry Wolkowicz & George P. H. Styan (1980). Bounds for eigenvalues using traces. *Linear Algebra and its Applications*, 29, 471–506. [MR 81k:15015, Zbl 435:15015 sic.]

32. Henry Wolkowicz & George P. H. Styan (1980). More bounds for eigenvalues using traces. *Linear Algebra and its Applications*, 31, 1–17. [MR 81k:15016, Zbl 434:15003.]

33. Henry Wolkowicz & George P. H. Styan (1980). Reply: Letter to the Editor "Extensions of Samuelson's inequality". *The American Statistician*, 34, 250–251.

34. George P. H. Styan (1981). On Lavoie's determinantal inequality. *Linear Algebra and its Applications*, 37, 77–80. [MR 82k:15009, Zbl 433:15006.]

35. Michael C. Lewis & George P. H. Styan (1981). Equalities and inequalities for conditional and partial correlation coefficients. In *Statistics and Related Topics: Proceedings of the International Symposium on Statistics and Related Topics: Ottawa, May 1980* (M. Csörgő , D. A. Dawson, J. N. K. Rao & A. K. Md. E. Saleh, eds.), North–Holland, Amsterdam, pp. 57–65. [MR 83j:62005, 83k:62073; Zbl 506:62040.]

36. Timo Mäkeläinen, Klaus Schmidt & George P. H. Styan (1981). On the existence and uniqueness of the maximum likelihood estimate of a vector–valued parameter in fixed–size samples. *The Annals of Statistics*, 9, 758–767. [MR 83b:62053, Zbl 473:62004.]

37. G. P. H. Styan (1982). The Canadian Journal of Statistics/La Revue Canadienne de Statistique. In *Encyclopedia of Statistical Sciences, Volume 1: A to Circular Probable Error* (Samuel Kotz, Norman L. Johnson & Campbell B. Read, eds.), Wiley, New York, pp. 352–354.

38. J. M. Borwein, G. P. H. Styan & H. Wolkowicz (1982). Some inequalities involving statistical expressions: Solution to Problem 81–10 [posed] by L. V. Foster. *SIAM Review*, 24, 340–342. [Reprinted in *Problems in Applied Mathematics: Selections from SIAM Review* (Murray S. Klamkin, ed.), SIAM, Philadelphia, 1990, pp. 373–375.]

39. T. W. Anderson & George P. H. Styan (1982). Cochran's theorem, rank additivity and tripotent matrices. In *Statistics and Probability: Essays in Honor of C. R. Rao* (G. Kallianpur, Paruchuri R. Krishnaiah & J. K. Ghosh, eds.), North–Holland, Amsterdam, 1–23. [MR 83h:15002, Zbl:62030.] Reprinted in The Collected Papers of T. W. Anderson: 1943–1985 (George P. H. Styan, ed.), Wiley, New York, [vol. 2,] pp. 1307–1329 (1990). [MR 91j: 01064.]

40. George P. H. Styan (1983). Generalized inverses. In *Encyclopedia of Statistical Sciences, Volume 3: Faà di Bruno's Formula to Hypothesis Testing* (Samuel Kotz, Norman L. Johnson & Campbell B. Read, eds.), Wiley, New York, pp. 334–337.

41. George P. H. Styan (1983). On some inequalities associated with ordinary least squares and the Kantorovich inequality. In *Festschrift for Eino Haikala on his Seventieth Birthday, Acta Universitatis Tamperensis*, Series A, vol. 153, pp. 158–166. [MR 85g:62120.]

42. Jorma Kaarlo Merikoski, George P. H. Styan & Henry Wolkowicz (1983). Bounds for ratios of eigenvalues using traces. *Linear Algebra and its Applications*, 55, 105–124. [MR 85a:15019, Zbl 522:15008.]

43. Friedrich Pukelsheim & George P. H. Styan (1983). Convexity and monotonicity properties of dispersion matrices of estimators in linear models. *Scandinavian Journal of Statistics*, 10, 145–149. [MR 85h:62092, Zbl 539:62078.]

44. George P. H. Styan & Akimichi Takemura (1983). Rank additivity and matrix polynomials. *Studies in Econometrics, Time Series, and Multivariate Statistics in Honor of Theodore W. Anderson* (Samuel Karlin, Takeshi Amemiya & Leo A. Goodman, eds.), Academic Press, New York, 545–558. [MR 85f:62004, 86e:15003; Zbl 586:15002.]

45. J. O. Ramsay, Jos ten Berge & G. P. H. Styan (1984). Matrix correlation. *Psychometrika*, 49, 403–423. [MR 86c: 62069, Zbl 581:62048.]

46. I. S. Alalouf & George P. H. Styan (1984). Characterizations of the conditions for the ordinary least squares estimator to be best linear unbiased. *Topics in Applied Statistics: Proceedings of the Statistics '81 Canada Conference: Concordia University, Montréal, April–May 1981* (Yogendra P. Chaubey & Tryambakeshwart D. Dwivedi, eds.), Concordia University, Montréal (Québec), pp. 331–344.

47. Alastair J. Scott & George P. H. Styan (1985). On a separation theorem for generalized eigenvalues and a problem in the analysis of sample surveys. *Linear Algebra and its Applications*, 70, 209–224. [MR 87i:62100, Zbl 587: 62023.]

48. George P. H. Styan (1985). Schur complements and linear statistical models. In *Proceedings of the First International Tampere Seminar on Linear Statistical Models and their Applications: Tampere, Finland, August–September 1983* (Tarmo Pukkila & Simo Puntanen, eds.), Dept. of Mathematical Sciences, University of Tampere, pp. 37–75.

49. Dominique Latour & George P. H. Styan (1985). Canonical correlations in the two–way layout. In *Proceedings of the First International Tampere Seminar on Linear Statistical Models and their Applications: Tampere, Finland, August–September 1983* (Tarmo Pukkila & Simo Puntanen, eds.), Dept. of Mathematical Sciences, University of Tampere, pp. 225–243.

50. Yves Thibaudeau & George P. H. Styan (1985). Bounds for Chakrabarti's measure of imbalance in experimental design. In *Proceedings of the First International Tampere Seminar on Linear Statistical Models and their Applications: Tampere, Finland, August–September 1983* (Tarmo Pukkila & Simo Puntanen, eds.), Dept. of Mathematical Sciences, University of Tampere, pp. 323–347.

51. Robert E. Hartwig & George P. H. Styan (1986). On some characterizations of the "star" partial ordering for matrices and rank subtractivity. *Linear Algebra and its Applications*, 82, 145–161. [MR 88b:15014a, Zbl

603:15001.]

52. George P. H. Styan (1986). Canonical correlations in the three–way layout. In *Pacific Statistical Congress: Auckland, New Zealand, May 1985* (I. S. Francis, B. F. J. Manly & F. C. Lam, eds.), Elsevier Science Publishers B. V., Amsterdam, pp. 433–438.

53. Robert E. Hartwig & George P. H. Styan (1987). Partially ordered idempotent matrices. In *Proceedings of the Second International Tampere Conference in Statistics: Tampere, Finland, June 1987* (Tarmo Pukkila & Simo Puntanen, eds.), Dept. of Mathematical Sciences, University of Tampere, pp. 361–383.

54. Dominique Latour, Simo Puntanen & George P. H. Styan (1987). Equalities and inequalities for the canonical correlations associated with some partitioned generalized inverses of a covariance matrix. In *Proceedings of the Second International Tampere Conference in Statistics: Tampere, Finland, June 1987* (Tarmo Pukkila & Simo Puntanen, eds.), Dept. of Mathematical Sciences, University of Tampere, pp. 541–553.

55. Henry Wolkowicz & George P. H. Styan (1988). Samuelson–Nair inequality. *Encyclopedia of Statistical Sciences, Volume 8: Regressograms – St. Petersburg Paradox* (Samuel Kotz, Norman L. Johnson & Campbell B. Read, eds.), Wiley, New York, 258–259.

56. Jerzy K. Baksalary, Friedrich Pukelsheim & George P. H. Styan (1989). Some properties of matrix partial orderings. *Linear Algebra and its Applications*, 119, 57–85; erratum: vol. 220, page 3 (1995). [MR 90h:15022, 96b:15032.]

57. George P. H. Styan (1989). Three useful expressions for expectations involving a Wishart matrix and its inverse. In *Statistical Data Analysis and Inference: Papers from the International Conference on Recent Developments in Statistical Data Analysis and Inference in Honor of C. Radhakrishna Rao held in Neuchâtel, August 21–24, 1989* (Yadolah Dodge, ed.), North–Holland, Amsterdam, 283–296. [MR 91i:62004, 92f:62072.]

58. Simo Puntanen & George P. H. Styan (1989). The equality of the ordinary least squares estimator and the best linear unbiased estimator [with comments by Oscar Kempthorne & by Shayle R. Searle and with "Reply" by the authors; further discussion in #61 below]. *The American Statistician*, 43, 153–164. [MR 92e:62125.]

59. Jerzy K. Baksalary, Kenneth Nordström & George P. H. Styan (1990). Löwner–ordering antitonicity of generalized inverses of Hermitian matrices. *Linear Algebra and its Applications*, 127, 171–182. Reprinted in *Contributions to the Comparison of Linear Models and to the Löwner–Ordering Antitonicity of Generalized Inverses* by Kenneth Nordström, Tilastotieteellisiä Tutkimuksia [Statistical Studies] vol. 12, Finnish Sta-

tistical Society, Helsinki, x + 89 pp. (1990). [MR 91f:15014, 94g:62143; Zbl 697:15007.]

60. Jerzy K. Baksalary, Simo Puntanen & George P. H. Styan (1990). A property of the dispersion matrix of the best linear unbiased estimator in the general Gauss–Markov model. *Sankhyā: The Indian Journal of Statistics*, Series A, 52, 279–296. [MR 93f:62089, Zbl 727:62072.]

61. Simo Puntanen & George P. H. Styan (1990). "Reply" [to Letters to the Editor by R. W. Farebrother, Ronald Christensen & David A. Harville on #58 above]. *The American Statistician*, 44, 192–193.

62. Jerzy K. Baksalary, Simo Puntanen & George P. H. Styan (1990). On T. W. Anderson's contributions to solving the problem of when the ordinary least–squares estimator is best linear unbiased and to characterizing rank additivity of matrices. In *The Collected Papers of T. W. Anderson: 1943–1985* (George P. H. Styan, ed.), Wiley, New York, vol. 2, pp. 1579–1591. [MR 91j:01064.]

63. K. J. Worsley, G. P. H. Styan & J. Bérubé (1991). Genstat ANOVA efficiency factors and canonical efficiency factors for non–orthogonal designs. *Genstat Newsletter*, 26, 11–21.

64. Julie Bérubé & George P. H. Styan (1992). On certain inequalities for average efficiency factors associated with the three–way layout of experimental design. In *Data Analysis and Statistical Inference: Festschrift in Honour of Prof. Dr. Friedhelm Eicker* (Siegfried Schach & Götz Trenkler, eds.), Josef Eul Verlag GmbH, Bergisch Gladbach, 421–434. [MR 94j:62003, 94k:62114; Zbl 789.62062.]

65. Jerzy K. Baksalary & George P. H. Styan (1993). Around a formula for the rank of a matrix product with some statistical applications. In *Graphs, Matrices, and Designs: Festschrift in Honor of Norman J. Pullman on his Sixtieth Birthday* (Rolf S. Rees, ed.), *Lecture Notes in Pure and Applied Mathematics*, vol. 139, Marcel Dekker, New York, 1–18. [MR 93i:05002, 93m:15001; Zbl 850:62628.]

66. Julie Bérubé & George P. H. Styan (1993). Decomposable three–way layouts. *Journal of Statistical Planning and Inference*, 36, 311–322. [MR 94j:62160, Zbl 785.62080.]

67. Julie Bérubé, Robert E. Hartwig & George P. H. Styan (1993). On canonical correlations and the degrees of non–orthogonality in the three–way layout. In *Statistical Sciences and Data Analysis: Proceedings of the Third Pacific Area Statistical Conference: Makuhari (Chiba, Tokyo), Japan, December 11–13, 1991* (Kameo Matusita, Madan L. Puri & Takesi Hayakawa, eds.), VSP International Science Publishers, Utrecht, The Netherlands, pp. 247–252. [MR 96a:62003, 96m:62117; Zbl 858:62045.]

68. J. K. Baksalary, J. Hauke & G. P. H. Styan (1994). On some distributional properties of quadratic forms in normal variables and on some associated matrix partial orderings. In *Multivariate Analysis and its Applications* (T. W. Anderson, K. T. Fang & I. Olkin, eds.), *IMS Lecture Notes–Monograph Series*, Institute of Mathematical Statistics, Hayward, California, vol. 24, pp. 111–121. [MR 98e:62010.]

69. S. W. Drury, George P. H. Styan & Gerald E. Subak–Sharpe (1994). On a fundamental upper limit for the open–circuit resistance measurable between any two terminals of a positive resistance network. In *Proceedings of the 1994 IEEE International Symposium on Circuits and Systems: London, England, May 30–June 2, 1994*, vol. 5, pp. 17–20.

70. S. W. Drury & George P. H. Styan (1995). The singular value decomposition of the square roots of the identity matrix: Solution to Problem 93.3.7 (proposed by R. W. Farebrother). *Econometric Theory*, 11, 650–653.

71. Sujit Kumar Mitra, Simo Puntanen & George P. H. Styan (1995). Shorted matrices and their applications in linear statistical models: a review. In *Multivariate Statistics and Matrices in Statistics: Proceedings of the Fifth Tartu Conference, Tartu–Pühajärve, Estonia, 23–28 May 1994* (E.–M. Tiit, T. Kollo & H. Niemi, eds.), *New Trends in Probability and Statistics*, vol. 3, VSP International Science Publishers, Zeist (Utrecht), The Netherlands & TEV Ltd., Vilnius, Lithuania, pp. 289–311. [MR 99h:62090.]

72. Simo Puntanen & George P. H. Styan (1996). An equivalence relation for two symmetric idempotent matrices: First Solution to Problem 95.3.3 (proposed by Shuangzhe Liu & Wolfgang Polasek). *Econometric Theory*, 12, 590–591.

73. Fuzhen Zhang & George P. H. Styan (1996). An equivalence relation for two symmetric idempotent matrices: Second Solution to Problem 95.3.3 (proposed by Shuangzhe Liu & Wolfgang Polasek). *Econometric Theory*, 12, 591–592.

74. Simo Puntanen & George P. H. Styan (1996). Matrix results associated with Aitken's generalization of the Gauss–Markov theorem: Solution to Problem 95.3.5 (proposed by R. W. Farebrother). *Econometric Theory*, 12, 593–595.

75. Simo Puntanen & George P. H. Styan (1996). The Moore–Penrose generalized inverse of a symmetric matrix: Solution to Problem 95.4.3 (proposed by R. W. Farebrother). *Econometric Theory*, 12, 748–749.

76. Simo Puntanen & George P. H. Styan (1996). A brief biography and appreciation of Calyampudi Radhakrishna Rao, with a bibliography of his books and papers. *Linear Algebra and its Applications*, 237/238, 1–40. [MR1382662, Zbl 846:01017.]

77. Josip E. Pečarić, Simo Puntanen & George P. H. Styan (1996). Some further matrix extensions of the Cauchy–Schwarz and Kantorovich inequalities, with some statistical applications. *Linear Algebra and its Applications*, 237/238, 455–476. [MR 97c:15035, Zbl 860:15021.]

78. Jerzy K. Baksalary, Peter Šemrl & George P. H. Styan (1996). A note on rank additivity and range additivity. *Linear Algebra and its Applications*, 237/238, 489–498. [MR 97b:15026, Zbl 856.47001.]

79. Robert E. Hartwig, Matjaž Omladič, Peter Šemrl & George P. H. Styan (1996). On some characterizations of pairwise star orthogonality using rank and dagger additivity and subtractivity. *Linear Algebra and its Applications*, 237/238, 499–507. [MR 97c:15004, Zbl 848.15013.]

80. Gülhan Alpargu & George P. H. Styan (1996). Some remarks and a bibliography on the Kantorovich inequality. In *Multidimensional Statistical Analysis and Theory of Random Matrices: Proceedings of the Sixth Eugene Lukacs Symposium, Bowling Green, OH, USA, March 29–30 1996* (Arjun K. Gupta & Vyacheslav L. Girko, eds.), VSP International Science Publishers, Zeist (Utrecht), The Netherlands, pp. 1–13. [MR 98b:62002, 98h:15033; Zbl 879:60015.]

81. Simo Puntanen, Peter Šemrl & George P. H. Styan (1996). Some remarks on the parallel sum of two matrices. In *Proceedings of the A. C. Aitken Centenary Conference (incorporating the 3rd Pacific Statistical Congress, the annual meeting of the New Zealand Statistical Association and the 1995 New Zealand Mathematics Colloquium, 28 August–1 September 1995): Otago Conference Series No. 5* (Laimonis Kavalieris, Fred C. Lam, Leigh A. Roberts and John A. Shanks, eds.), University of Otago Press, Dunedin, New Zealand, pp. 243–256.

82. Simo Puntanen & George P. H. Styan (1997). Orthogonal projectors: Solution to Problem 96.4.3 (proposed by Jürgen Groß & Götz Trenkler). *Econometric Theory*, 13, 764–765.

83. George P. H. Styan & Gerald E. Subak–Sharpe (1997). Inequalities and equalities associated with the Campbell–Youla generalized inverse of the indefinite admittance matrix of resistive networks. *Linear Algebra and its Applications*, 250, 349–370. [MR 97k:94095, Zbl 867:15003.]

84. Geoffrey S. Watson, Gülhan Alpargu & George P. H. Styan (1997). Some comments on six inequalities associated with the inefficiency of ordinary least squares with one regressor. *Linear Algebra and its Applications*, 264, 13–53. [MR 98i:15023, Zbl 948.62046.]

85. Simo Puntanen & George P. H. Styan (1998). A fundamental matrix result on scaling in multivariate analysis: Solution to Problem 97.5.3 (proposed by Heinz Neudecker, Albert Satorra & Michel van de Velden). *Econometric Theory*, 14, 693–695.

86. Simo Puntanen, George P. H. Styan & Gerald E. Subak–Sharpe (1998). Mahalanobis distance for multinomial data: Solution to Problem 97.5.4 (proposed by Heinz Neudecker). *Econometric Theory*, 14, 695–698.

87. Markku Nurhonen, Simo Puntanen, George P. H. Styan & Haruo Yanai (1998). Simplified matrix proofs related to the deletion of an observation in [the] general linear model. In *Frontiers in Probability and Statistics* (S. P. Mukherjee, S. K. Basu & B. K. Sinha, eds.), Narosa Publishing House, New Delhi, pp. 267–275. [One of 38 selected papers (out of 101) presented at the Second International Triennial Calcutta Symposium on Probability and Statistics (Calcutta, India, December 30, 1994–January 2, 1995). MR 2000a:62156, Zbl 926.62056.]

88. Gülhan Alpargu, S. W. Drury & George P. H. Styan (1998). Some remarks on the Bloomfield–Watson–Knott inequality and on some other inequalities related to the Kantorovich inequality. In *Proceedings of the Conference in Honor of Shayle R. Searle, August 9–10, 1996*, Biometrics Unit, Cornell University, Ithaca, New York, pp. 125–143.

89. Shane T. Jensen & George P. H. Styan (1999). Some comments and a bibliography on the Laguerre–Samuelson inequality with extensions and applications to statistics and matrix theory. In *Analytic and Geometric Inequalities and Applications* (Themistocles M. Rassias & Hari M. Srivastava, eds.), *Mathematics and Its Applications*, Volume 478, Kluwer Academic Publishers, Dordrecht, pp. 151–181. [MR 2001h:15013; Zbl 0980.15016.]

90. George P. H. Styan & Hans Joachim Werner (1999). Upper bounds for eigenvalues of nonnegative definite matrices: Solution to Problem 98.2.2 (proposed by Eric Iksoon Im). *Econometric Theory*, 15, 261–262.

91. Simo Puntanen, George P. H. Styan & Hans Joachim Werner (1999). A determinantal identity: Solution to Problem 98.4.1 (proposed by Heinz Neudecker & Michel van de Velden). *Econometric Theory*, 15, 632–633.

92. Selahattin Kaçiranlar, Sadullah Sakallioğlu, Fikri Akdeniz, George P. H. Styan & Hans Joachim Werner (1999). A new biased estimator in linear regression and a detailed analysis of the widely–analysed dataset on Portland cement. *Sankhyā: The Indian Journal of Statistics*, Series B, 61, 443–459.

93. G. P. H. Styan (1999). Comment on "A history of the Statistical Society of Canada: the formative years" [by David R. Bellhouse & Christian Genest, *Statistical Science*, 14, 80–125, 1999]. *Statistical Science*, 14, page 125.

94. Simo Puntanen, George P. H. Styan & Hans Joachim Werner (2000). The eigenvalue decomposition of a symmetric matrix: Solution 1 to Problem 99.3.1 (proposed by R. W. Farebrother). *Econometric Theory*, 16, 289–294. [Solution 2 by Geert Dhaene is on pp. 292–294; combined references

are on page 294.]

95. Gülhan Alpargu & George P. H. Styan (2000). Some comments and a bibliography on the Frucht–Kantorovich and Wielandt inequalities. In *Innovations in Multivariate Statistical Analysis: A Festschrift for Heinz Neudecker* (R. D. H. Heijmans, D. S. G. Pollock & A. Satorra, eds.), Kluwer Academic Publishers, Dordrecht, pp. 1–38.

96. Simo Puntanen, George P. H. Styan & Hans Joachim Werner (2000). Two matrix–based proofs that the linear estimator Gy is the best linear unbiased estimator. *Journal of Statistical Planning and Inference*, 88, 173–179. [MR 2001h:62120; Zbl 0964.62054.]

97. Gerald E. Subak–Sharpe & George P. H. Styan (2000). A necessary condition for the realization of a resistive n–port based on network size and on the concept of weighted terminal valency. *Proceedings of the ISCAS 2000–IEEE International Symposium on Circuits and Systems* (Geneva, Switzerland, May 28–31, 2000), vol. I, pp. I–487–I–490.

98. Simo Puntanen, George P. H. Styan & Hans Joachim Werner (2000). Letter to the Editor about "Simple forms of the best linear unbiased predictor in the general linear regression model" by Silvia N. Elian [*The American Statistician*, 54, 25–28, 2000]. *The American Statistician*, 54, 326–327.

99. Simo Puntanen, George P. H. Styan & Hans Joachim Werner (2001). Determinant of a skew–symmetric matrix: Solution 1 to Problem 00.1.1 (proposed by Steve Lawford). *Econometric Theory*, 17, 277.

100. Yongge Tian & George P. H. Styan (2001). How to establish universal block–matrix factorizations. *Electronic Journal of Linear Algebra*, 8, 115–127: http://www.math.technion.ac.il/iic/ela [MR 2002f:15017; Zbl 0979.15012.]

101. Yongge Tian & George P. H. Styan (2001). Rank equalities for idempotent and involutory matrices. *Linear Algebra and its Applications*, 335, 101–117. [MR 2002f:15001; Zbl 0988.15002.]

102. Yongge Tian and George P. H. Styan (2002). A new rank formula for idempotent matrices with applications. *Commentationes Mathematicae Universitatis Carolinae* (Prague), 43, 379–384. [MR 2003f:15005.]

103. Yongge Tian & George P. H. Styan (2002). When does rank(ABC)= rank(AB) + rank(BC) − rank(B) hold? *International Journal of Mathematical Education in Science and Technology*, 33, 127–137. [MR1880569, Zbl 1015.15001.]

104. George P. H. Styan (2002). Harold Ruben: 1923–2001. *Journal of the Royal Statistical Society, Series D: The Statistician*, 106, 568–570.

105. Jerzy K. Baksalary, Oskar Maria Baksalary & George P. H. Styan (2002). Idempotency of linear combinations of an idempotent matrix and a tripotent matrix. *Linear Algebra and its Applications*, 354, 21–34. [MR 2003h:15006, Zbl 1016.15027.]

106. Jerzy K. Baksalary & George P. H. Styan (2002). Generalized inverses of partitioned matrices in Banachiewicz–Schur form. *Linear Algebra and its Applications*, 354, 41–47. [MR1927646 (2003h:15006), Zbl 1022.15006.]

107. S. W. Drury, Shuangzhe Liu, Chang–Yu Lu, Simo Puntanen & George P. H. Styan (2002). Some comments on several matrix inequalities with applications to canonical correlations: historical background and recent developments. *Sankhyā: The Indian Journal of Statistics*, Series A, 64, 453–507. [MR1981768 (2004e:62111).]

108. George P. H. Styan & Hans Joachim Werner (2003). A particular symmetric idempotent matrix: solution to Problem 02.1.2 (proposed by Heinz Neudecker). *Econometric Theory*, 19, 227–228.

109. Ka Lok Chu, Jarkko Isotalo, Simo Puntanen & George P. H. Styan (2004). On decomposing the Watson efficiency of ordinary least squares in a partitioned weakly singular linear model. *Sankhyā: The Indian Journal of Statistics*, 66, 634–651. [MR2205814]

110. Simo Puntanen & George P. H. Styan (2004). Historical introduction: Issai Schur and the early development of the Schur complement. Chapter 0 and Bibliography in *The Schur Complement and Its Applications* (Fuzhen Zhang, ed.), Springer Science+Business Media, pp. 1–16, 259–288.

111. Simo Puntanen & George P. H. Styan (2004). Schur complements in statistics and probability. Chapter 6 and Bibliography in *The Schur complement and Its Applications* (Fuzhen Zhang, ed.), Springer Science+Business Media, pp. 163–226, 259–288.

112. Simo Puntanen, George P. H. Styan & Yongge Tian (2005). Three rank formulas associated with the covariance matrices of the BLUE and the OLSE in the general linear model. *Econometric Theory*, 21, 659–663. [MR2162764 (2006g:62066), Zbl 1072.62049]

113. Oskar Maria Baksalary & George P.H. Styan (2005). Some comments on the life and publications of Jerzy K. Baksalary (1944–2005). *Linear Algebra and its Applications*, 410, 3–53.

114. Yongge Tian & George P. H. Styan (2005). Cochran's statistical theorem for outer inverses of matrices and matrix quadratic forms. *Linear and Multilinear Algebra*, 53, 387–392. [MR2156647 (2006d:62058), Zbl 1083.15007]

115. Ka Lok Chu, Jarkko Isotalo, Simo Puntanen & George P. H. Styan (2005). Some further results concerning the decomposition of the Watson efficiency in partitioned linear models. *Sankhyā: The Indian Journal of Statistics*, 67, 74–89. [MR2204850]

116. Fikri Akdeniz, George P. H. Styan & Hans Joachim Werner (2006). The general expressions for the moments of the stochastic shrinkage parameters of the Liu–type estimator. *Communications in Statistics: Theory and Methods*, 35, 423–437. [Zbl 1084.62046].

117. Simo Puntanen & George P. H. Styan (2006). Some comments about Issai Schur (1875–1941) and the early history of Schur complements. In *Contributions to Probability and Statistics: Applications and Challenges – Proceedings of the International Statistics Workshop, University of Canberra, 4–5 April 2005* (Peter Brown, Shuangzhe Liu & Dharmendra Sharma, eds.), World Scientific, Singapore, pp. 28–66.

118. Jarkko Isotalo, Simo Puntanen & George P. H. Styan (2006). Matrix tricks for linear statistical models: a short review of our personal top fourteen. In *Contributions to Probability and Statistics, Applications and Challenges: Proceedings of the International Statistics Workshop, University of Canberra, 4–5 April 2005* (Peter Brown, Shuangzhe Liu & Dharmendra Sharma, eds.), World Scientific, Singapore, pp. 113–128.

119. Simo Puntanen & George P. H. Styan (2006). A conversation with Tarmo Mikko Pukkila. In *Festschrift for Tarmo Pukkila on his 60th Birthday* (Erkki P. Liski, Jarmo Niemelä, Jarkko Isotalo, Simo Puntanen & George P. H. Styan, eds.), Dept. of Mathematics, Statistics and Philosophy, University of Tampere, pp. 13–44. [Zbl 1138.01339]

120. Simo Puntanen & George P. H. Styan (2006). Some comments on the research publications of Tarmo Mikko Pukkila. In *Festschrift for Tarmo Pukkila on his 60th Birthday* (Erkki P. Liski, Jarmo Niemelä, Jarkko Isotalo, Simo Puntanen & George P. H. Styan, eds.), Dept. of Mathematics, Statistics and Philosophy, University of Tampere, pp. 45–62. [Zbl 1138.01340]

121. Jarkko Isotalo, Simo Puntanen & George P. H. Styan (2006). On the role of the constant term in linear regression. In *Festschrift for Tarmo Pukkila on his 60th Birthday* (Erkki P. Liski, Jarmo Niemelä, Jarkko Isotalo, Simo Puntanen & George P. H. Styan, eds.), Dept. of Mathematics, Statistics and Philosophy, University of Tampere, pp. 243–259. [Zbl 1145.62350]

122. Yongge Tian & George P. H. Styan (2006). Rank equalities for idempotent matrices with applications. *Journal of Computational and Applied Mathematics*, 191, 77–97. [MR2217786, Zbl pre05024169]

123. Yongge Tian & George P. H. Styan (2006). Cochran's statistical theorem revisited. *Journal of Statistical Planning and Inference*, 136, 2659–2667. [Zbl pre05037741]

124. Simo Puntanen & George P. H. Styan (2007). Chapter 52: Random vectors and linear statistical models. In *Handbook of Linear Algebra* (Leslie Hogben, ed.), Chapman & Hall/CRC, Boca Raton, pp. 52.1–52.17.

125. Simo Puntanen, George A. F. Seber & George P. H. Styan (2007). Chapter 53: Multivariate statistical analysis. In *Handbook of Linear Algebra* (Leslie Hogben, ed.), Chapman & Hall/CRC, Boca Raton, pp. 53.1–53.15.

126. Jarkko Isotalo, Simo Puntanen & George P. H. Styan (2007). Effect of adding regressors on the equality of the OLSE and BLUE. *International Journal of Statistical Sciences*, 6, 193–201. [Invited paper in the Second Special Issue in Felicitation of Professor Mir Masoom Ali on the Occasion of his 70th Birthday.]

127. George P. H. Styan & Götz Trenkler (2007). A philatelic excursion with Jeff Hunter in probability and matrix theory. *Journal of Applied Mathematics and Decision Sciences*, 2007, article ID 13749, 10 pp., doi:10.1155/2007/ 13749. (Invited paper in the Special Issue on Statistics and Applied Probability: A Tribute to Jeffrey J. Hunter, Graeme Charles Wake & Paul Cowpertwait, eds.) [Zbl pre05304408]

128. Ka Lok Chu, Jarkko Isotalo, Simo Puntanen & George P. H. Styan (2007). The efficiency factorization multiplier for the Watson efficiency in partitioned linear models: some examples and a literature review. *Journal of Statistical Planning and Inference*, 137, 3336–3351. (Invited paper in the Special Issue in Celebration of the Centennial of the Birth of Samarendra Nath Roy (1906–1964), G. S. Mudholkar, A. D. Hutson & M. P. McDermott, eds.) [Zbl 1119.62065]

129. George P. H. Styan (2007). A philatelic introduction to magic squares and Latin squares for Euler's 300th birthyear. In *Proceedings of the Canadian Society for History and Philosophy of Mathematics/Société Canadienne d'Histoire et de Philosophie des Mathématiques* (Antonella Cupillari, ed.), vol. 20, pp. 306–319. [ISSN 0825–5924. Contributed paper at the 32nd Annual Meeting, Montreal, July 27–29, 2007.]

130. Simo Puntanen & George P. H. Styan (2008). Stochastic stamps: a philatelic introduction to chance. *Chance*, 21 (3), 36–41. [MR2507100]

131. Jarkko Isotalo, Simo Puntanen & George P. H. Styan (2008). A useful matrix decomposition and its statistical applications in linear regression. *Communications in Statistics: Theory and Methods*, 37 (8–10), 1436– 1457. [MR2440447(2009m:62211)]

132. Oskar Maria Baksalary & George P. H. Styan (2008). Some comments on the life and publications of Jerzy K. Baksalary (1944–2005). *Discussiones Mathematicae: Probability and Statistics*, 28 (1), 5–64. (Invited paper in the Special Issue in Honour of Jerzy K. Baksalary.) [MR2475197]

133. Oskar Maria Baksalary & George P. H. Styan (2008). Some comments on the diversity of Vermeer paintings depicted on postage stamps. *Discussiones Mathematicae: Probability and Statistics*, 28 (1), 65–83. (Invited paper in the Special Issue in Honour of Jerzy K. Baksalary.) [MR2475198]

134. Simo Puntanen & George P. H. Styan (2008). Foreword [to the Special Issue in Honour of Jerzy K. Baksalary]. *Discussiones Mathematicae: Probability and Statistics*, 28 (1), 85–90. [MR2475199]

135. Jarkko Isotalo, Simo Puntanen & George P. H. Styan (2008). Decomposing matrices with Jerzy K. Baksalary. *Discussiones Mathematicae: Probability and Statistics*, 28 (1), 91–111. [MR2475200(2010b:62254)]

136. Ka Lok Chu, Jarkko Isotalo, Simo Puntanen & George P. H. Styan (2008). Inequalities and equalities for the generalized efficiency function in orthogonally partitioned linear models. In *Inequalities and Applications* (Themistocles M. Rassias & Dorin Andrica, eds.), Cluj University Press, Cluj, Romania, pp. 13–69.

137. Christopher C. Paige, George P. H. Styan, Bo Ying Wang & Fuzhen Zhang (2008). Hua's matrix equality and Schur complements. *International Journal of Information & Systems Sciences*, 4 (1), 124–135. [MR2401768 (2010f:15037),Zbl pre05347976]

138. Jarkko Isotalo, Simo Puntanen & George P. H. Styan (2008). The BLUE's covariance matrix revisited: a review. *Journal of Statistical Planning and Inference*, 138 (9), 2722–2737. [Invited paper in the Special Issue in Honor of Theodore Wilbur Anderson, Jr., on the Occasion of his 90th Birthday, Tze Leung Lai, Ingram Olkin & Raja Velu, eds. MR2422395, Zbl 1141.62325.]

139. Jarkko Isotalo, Simo Puntanen & George P. H. Styan (2009). Some comments on the Watson efficiency of the ordinary least squares estimator under the Gauss–Markov model. *Calcutta Statistical Association Bulletin*, 61, 1–15. [MR2554134(2010k:62278)]

140. Oskar Maria Baksalary, Ka Lok Chu, Simo Puntanen & George P. H. Styan (2009). Some comments on Fisher's α index of diversity and on the *Kazwini Cosmography*. In *Statistical Inference, Econometric Analysis and Matrix Algebra: Festschrift in Honour of Götz Trenkler* (Bernhard Schipp & Walter Krämer, eds.), Physica-Verlag, Heidelberg, pp. 369–394.

143. S. Ejaz Ahmed, Jeffrey J. Hunter, George P. H. Styan & Götz Trenkler (2009). Preface to the Proceedings of the 16th International Workshop on Matrices and Statistics, Windsor 2007. Held at the University of Windsor, Windsor, ON, June 1–3, 2007. *Linear Algebra and Its Applications*, 430 (10), 2563–2565. [MR2509840]

141. Karl E. Gustafson & George P. H. Styan (2009). Superstochastic matrices and magic Markov chains. *Linear Algebra and its Applications*, 430 (10), 2705–2715. [MR2509852(2010c:15031)]

142. Yongge Tian & George P. H. Styan (2009). On some matrix equalities for generalized inverses with applications. *Linear Algebra and its Applications*, 430 (10), 2716–2733. [MR2509853(2010a:15055)]

144. Oskar Maria Baksalary, George P. H. Styan & Götz Trenkler (2009). On a matrix decomposition of Hartwig and Spindelböck. *Linear Algebra and Its Applications*, 430 (10), 2798–2812. [MR2509859(2010d:15022)]

145. George P. H. Styan, Christian Boyer & Ka Lok Chu (2009). Some comments on Latin squares and on Graeco–Latin squares, illustrated with postage stamps and old playing cards. *Statistical Papers*, 50, 917–941. [MR2551361(2010i:05059)]

146. Ka Lok Chu, Simo Puntanen & George P. H. Styan (2009). Some comments on philatelic Latin squares from Pakistan. *Pakistan Journal of Statistics*, 25, 427–471. [MR2750609]

147. Augustyn Markiewicz, Simo Puntanen & George P. H. Styan (2010). A note on the interpretation of the equality of OLSE and BLUE. *Pakistan Journal of Statistics*, 26, 127–134. [MR2756730]

148. Simo Puntanen & George P. H. Styan (2010). Best linear unbiased estimation in linear models. *StatProb: The Encyclopedia Sponsored by Statistics and Probability Societies*. Available at http://statprob.com /encyclopedia/BestLinearUnbiasedEstimatinInLinearModels.html

149. Peter D. Loly & George P. H. Styan (2010). Comments on 4×4 philatelic Latin squares. *Chance: A Magazine for People Interested in the Analysis of Data*, 23, 1, 57–62.

150. Peter D. Loly & George P. H. Styan (2010). Comments on 5×5 philatelic Latin squares. *Chance: A Magazine for People Interested in the Analysis of Data*, 23, 2, 58–62.

151. Peter D. Loly & George P. H. Styan (2010/2011). Philatelic Latin squares. In *Proceedings of the Canadian Society for History and Philosophy of Mathematics/Société Canadienne d'Histoire et de Philosophie des Mathématiques*, 23, 273–297.

152. Ka Lok Chu, S. W. Drury, George P. H. Styan & Götz Trenkler (2011). Magic Moore–Penrose inverses and philatelic magic squares with special emphasis on the Daniels–Zlobec magic square. *Croatian Operational Research Review*, 2, 4–13.

153. Ka Lok Chu, Simo Puntanen & George P. H. Styan (2011). Solution to Problem 1/SP09 "Inverse and determinant of a special symmetric matrix" (Problem proposed by Heinz Neudecker, Götz Trenkler & Shuangzhe Liu). *Statistical Papers*, 52, 258–260.

154. Simo Puntanen & George P. H. Styan (2011). Best linear unbiased estimation in a linear model. *International Encyclopedia of Statistical Science* (Miodrag Lovric, ed.), Springer, Part 2, pp. 141–144. ISBN: 978–3–642–04897–5.

155. Simo Puntanen, George P. H. Styan & Jarkko Isotalo (2012). Matrix tricks for linear statistical models: a quick look at our personal top ones. In *Lectures on Matrix and Graph Methods* (Ravindra B. Bapat, Steve J. Kirkland, K. Manjunatha Prasad & Simo Puntanen, eds.), Manipal University Press, pp. 91–112.

156. George P. H. Styan, Götz Trenkler & Ka Lok Chu (2012). An introduction to Yantra magic squares and Agrippa–Cardano type magic matrices: Lecture notes. In *Lectures on Matrix and Graph Methods* (Ravindra B. Bapat, Steve J. Kirkland, K. Manjunatha Prasad & Simo Puntanen, eds.), Manipal University Press, pp. 159–220. [Based on invited talk given at at the International Workshop and Conference on Combinatorial Matrix Theory and Generalized Inverses of Matrices, Manipal University, Manipal (Karnataka), India, 2–7 & 10–11 January 2012: video (updated 17 February 2011) online http://vimeo.com/37284121.]

157. Simo Puntanen & George P. H. Styan (2012). A conversation with Sujit Kumar Mitra in 1993. In *Lectures on Matrix and Graph Methods* (Ravindra B. Bapat, Steve J. Kirkland, K. Manjunatha Prasad & Simo Puntanen, eds.), Manipal University Press, pp. 221–244.

158. George P. H. Styan (2012). Caïssan squares: the magic of chess. Special talk presented at *The 9th Tartu Conference on Multivariate Statistics & The 20th International Workshop on Matrices and Statistics*, Tartu, Estonia, 26 June–1 July 2011: accepted for publication in *Acta et Commentationes Universitatis Tartuensis de Mathematica*, 36 pp.

159. Simo Puntanen & George P. H. Styan (2012). Chapter 52: Random Vectors and Linear Statistical Models. *Handbook of Linear Algebra*, 2nd Edition (Leslie Hogben, ed.), Chapman & Hall (in press).

160. Simo Puntanen, George A. F. Seber & George P. H. Styan (2012). Chapter 53: Multivariate Statistical Analysis. *Handbook of Linear Algebra*, 2nd Edition (Leslie Hogben, ed.), Chapman & Hall (in press).

161. George P. H. Styan (2012). An illustrated introduction to some magic squares from India. Invited paper for *Combinatorial Matrix Theory and Generalized Inverses of Matrices* (Ravindra B. Bapat, Steve J. Kirkland, K. Manjunatha Prasad & Simo Puntanen, eds.), Springer, in progress. [Based on talks given at the Annual Meeting of the Canadian Society for the History and Philosophy of Mathematics (CSHPM), University of Waterloo, 27–29 May 2012, and at the International Workshop and Conference on Combinatorial Matrix Theory and Generalized Inverses of Matrices, Manipal University, Manipal (Karnataka), India, 2–7 & 10–11 January 2012: video (updated 17 February 2011) online http://vimeo.com/37291712.]

162. Gerald E. Subak-Sharpe, S. W. Drury & George P. H. Styan (2012). Some comments on the properties of the impedance matrices of resistive electrical networks and on the n–port problem. Invited paper for publication in *Measurement Science Review*. Preprint: 15 pp., 3 June 2012. [Based on talk given by Gerald E. Subak-Sharpe at the 18th International Workshop on Matrices and Statstics (IWMS-18), Smolenice Castle, Slovakia,

23–27 June 2009.]

163. Götz Trenkler & George P. H. Styan (2012). A purely mathematical treatment of the problem of magic squares with 16 and 64 cells, by F. Fitting [Friedrich Fitting (1862–1945)]. Translated from the German "Rein mathematische Behandlung des Problems der magischen Quadrate von 16 und von 64 Feldern" [*Jahresbericht der Deutschen Mathematiker-Vereinigung,* vol. 40, pp. 177–199 (1931)] by Götz Trenkler; edited and commentary by George P. H. Styan. Report 2012-02: Department of Mathematics and Statistics, McGill University, Montréal, 109 pp., 4 June 2012.

164. Miguel Angel Amela, Ka Lok Chu, Amir Memartoluie, George P. H. Styan & Götz Trenkler (2012). An illustrated introduction to Euler and Fitting factorizations and Anderson graphs for classic magic matrices. [In preparation for presentation as an invited talk in the Special Session to celebrate George P. H. Styan's 75th Birthday at the International Conference on Trends and Perspectives in Linear Statistical Inference (LINSTAT-2012) & 21st International Workshop on Matrices and Statistics (IWMS-2012), Mathematical Research and Conference Center of the Institute of Mathematics of the Polish Academy of Sciences, Bedlewo (near Poznań), Poland, 16–20 July 2012.]

III. Biographical Publications, including Obituaries

1. George P. H. Styan, ed. (1987). In Memoriam: George L[ewis] Edgett (1900–1986). *The IMS Bulletin*, vol. 16, page 95.

2. George P. H. Styan, ed. (1987). In Memoriam: John Van Ryzin (1935–1987). *The IMS Bulletin*, vol. 16, page 158.

3. George P. H. Styan, ed. (1987). In Memoriam: Paruchuri R[ama] Krishnaiah (1932–1987). *The IMS Bulletin*, vol. 16, page 264.

4. George P. H. Styan, ed. (1987). The Emperor [Joseph II: 1741–1790]. *The IMS Bulletin*, vol. 16, pp. 305–306. [Reprinted in *The IMS Bulletin,* vol. 21 (1992), pp. 642–643.]

5. George P. H. Styan, ed. (1988). Louis Guttman: 1916–1987 [Obituary]. *The IMS Bulletin*, vol. 17, page 284.

6. George P. H. Styan, ed. (1988). The Reverend Thomas Bayes, F.R.S. 1701?–1761. *The IMS Bulletin*, vol. 17, pp. 276–278, 482–483, vol. 20 (1991), page 226. [Reprinted in *The IMS Bulletin,* vol. 21 (1992), pp. 644–649.]

7. George P. H. Styan (1989). Linnaeus and Celsius. *The IMS Bulletin*, vol. 18, page 326. [Reprinted in *The IMS Bulletin,* vol. 21 (1992), page 217.]

8. George P. H. Styan, ed. (1990). Lord [Nathaniel Mayer Victor] Rothschild, GBE, GM, FRS: 1910–1990 [Obituary]. *The IMS Bulletin*, vol. 19, page 501.

9. George P. H. Styan, ed. (1991). Thornton Carl Fry: 1892–1991 [Obituary]. *The IMS Bulletin*, vol. 20, page 2.

10. George P. H. Styan, ed. (1991). Wassily Hoeffding: 1914–1991 [Obituary]. *The IMS Bulletin*, vol. 20, page 98.

11. George P. H. Styan, ed. (1991). Allen Thornton Craig: 1904–1978 [Obituary]. *The IMS Bulletin*, vol. 20, page 389.

12. George P. H. Styan, ed. (1991). The Allen T. Craig Lectures at the University of Iowa. *The IMS Bulletin*, vol. 20, pp. 389–390.

13. George P. H. Styan, ed. (1992). José Tiago da Fonseca Oliveira: 1928–1992 [Obituary]. *The IMS Bulletin*, vol. 21, page 467.

14. George P. H. Styan (1992). Six–Year Index to Obituaries, PhDs in the Statistical Sciences [and] Photographs [in *The IMS Bulletin,* vol. 16–21 (1987–1992)]. *The IMS Bulletin*, vol. 21, pp. 650–653.

15. George P. H. Styan, ed. (1999). Feliks Ruvimovich Gantmakher and The Theory of Matrices. *Image*, no. 22 (April 1999), pp. 12–13.

16. George P. H. Styan, ed. (1999). More about William Spottiswoode. *Image*, no. 23 (October 1999), pp. 4–5.

17. George P. H. Styan, ed. (1999). IMAGE Philatelic Corner [Takakazu Seki Kwa]. *Image*, no. 23 (October 1999), page 8.

18. R. William Farebrother & George P. H. Styan (2000). A genealogy of the Spottiswoode family: 1510–1900. *Image*, no. 25 (October 2000), 19–21.

19. R. William Farebrother, Shane T. Jensen & George P. H. Styan (2000). Charles Lutwidge Dodgson: A biographical and philatelic note. *Image*, no. 25 (October 2000), pp. 22–23.

20. Jolanta Grala, Augustyn Markiewicz & George P. H. Styan (2000). Tadeusz Banachiewicz: 1882–1954. *Image*, no. 25, page 24.

21. R. William Farebrother & George P. H. Styan (2001). Some observations on "A genealogy of the Spottiswoode family". *Image*, no. 27 (October 2001), page 2.

22. R. William Farebrother, Shane T. Jensen & George P. H. Styan (2002). Sir Thomas Muir and nineteenth–century books on determinants. *Image*, no. 28 (April 2002), pp. 6–15.

23. George P. H. Styan (2002). Harold Ruben: 1923–2001. [An updated version (3 June 2012) of the full obituary is online at http://www.math.mcgill.ca/styan/Ruben-3june12.pdf (with photographs and a complete bibliography). Slightly different versions of the original obituary published in *Amstat News*, #296, pp. 26–27, February 2002, *The IMS Bulletin*, 31 (2), page 17, March/April 2002, *The ISI Newsletter,* 26 (1), issue #76, 8–9, February 2002, and in *SSC Liaison,* 16 (1), 29–30, February 2002.]

24. George P. H. Styan (2002). Biographies, portraits and stamps on the Web. *Image*, no. 28 (April 2002), page 17.

25. R. William Farebrother, George P. H. Styan & Garry J. Tee (2003). Gottfried Wilhelm von Leibniz: 1646–1716. *Image*, no. 30 (April 2003), pp. 13–16.

26. Simo Puntanen & George P. H. Styan (2006). A conversation with Sujit Kumar Mitra in 1993 and some comments on his research publications. Report A 372, Dept. of Mathematics, Statistics and Philosophy, University of Tampere, 61 pp.

27. Simo Puntanen & George P. H. Styan (2006). A photo album for Tarmo Mikko Pukkila. In *Festschrift for Tarmo Pukkila on his 60th Birthday* (Erkki P. Liski, Jarmo Niemelä, Jarkko Isotalo, Simo Puntanen & George P. H. Styan, eds.), Dept. of Mathematics, Statistics and Philosophy, University of Tampere, pp. 367–383. [Zbl 1138.01341]

28. Peter Macdonald, Ajit Tamhane & George Styan (2007). Charles William Dunnett (1921–2007). *SSC Liaison,* 21 (2–3), page E–23 (English), page F–24 (French).

29. Christian Genest, George P. H. Styan & David B. Wolfson (2009). Keith John Worsley (1951–2009). *SSC Liaison,* 23 (2), pp. 36–37 (in English and in French).