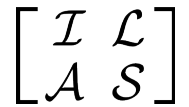


# IMAGE



Serving the International Linear Algebra Community  
Issue Number 57, pp. 1–32, Fall 2016

---

*Editor-in-Chief:* Kevin N. Vander Meulen; kvanderm@redeemer.ca

*Contributing Editors:* Minerva Catral, Michael Cavers, Douglas Farenick, Carlos Fonseca,  
Rajesh Pereira, David Strong, Naomi Shaked-Monderer, and Amy Wehe.

*Advisory Editors:* Jane Day, Steven Leon. *Managing Editor:* Louis Deaett.

---

*Past Editors-in-Chief:* Robert C. Thompson (1988); Jane M. Day & Robert C. Thompson (1989);  
Steven J. Leon & R.C. Thompson (1989–1993); Steven J. Leon (1993–1994); Steven J. Leon & George P.H. Styan  
(1994–1997); George P.H. Styan (1997–2000); George P.H. Styan & Hans J. Werner (2000–2003); Bryan Shader & Hans  
J. Werner (2003–2006); Jane M. Day & Hans J. Werner (2006–2008); Jane M. Day (2008–2011).

---

About *IMAGE* ..... 2

## Feature Interview

“Students at all levels have something to offer”  
An Interview with Charles R. Johnson, by Carlos M. da Fonseca ..... 3

## Linear Algebra Education

Linear Algebra Education Notes from David Strong ..... 4

## Article

A note in memory of Bob Thompson: 20 years later, by Wasin So ..... 6

## Book Reviews

*Matrix Functions and Matrix Equations*, by Zhaojun Bai, Weiguo Gao, and Yangfen Su,  
Reviewed by Chun-Hua Guo ..... 8

*Numerical Linear Algebra and Its Applications (Second Edition)*, by Xiao-Qing Jin, Yi-Min Wei, and Zhi Zhao,  
Reviewed by Fuzhen Zhang ..... 9

*Linear Algebra and Matrices: Topics for a Second Course*, by Helene Shapiro,  
Reviewed by Rajesh Pereira ..... 9

Send News for *IMAGE* Issue 58 ..... 10

## Obituary Notices

Obituary Notice: T.W. Anderson ..... 12

Obituary Notice: T.S. Michael ..... 12

## Journal Announcement

*LAMA* Special Issue in Honor of Marvin Marcus ..... 12

## Upcoming Conferences and Workshops

Matrix Equations and Tensor Techniques Workshop, Italy, February 13–14, 2017 ..... 13

The 8<sup>th</sup> Linear Algebra Workshop (LAW’17), Slovenia, June 12–16, 2017 ..... 13

The 6<sup>th</sup> International Conference on Matrix Analysis and Applications (ICMAA 2017), Vietnam, June 15–18, 2017 .. 13

The Householder Symposium XX on Numerical Linear Algebra, USA, June 18–23, 2017 ..... 13

Preservers Everywhere, Hungary, June 19–23, 2017 ..... 14

The Second Malta Conference in Graph Theory and Combinatorics (2MCGTC 2017), Malta, June 26–30, 2017 ..... 14

Rocky Mountain–Great Plains Graduate Research Workshop in Combinatorics 2017 (GRWC 2017), USA, July  
9–22, 2017 ..... 15

ILAS 2017: Connections, USA, July 24–28, 2017 ..... 15

Preconditioning 2017 - International Conference on Preconditioning Techniques for Scientific and Industrial  
Applications, Canada, July 31–August 2, 2017 ..... 16

Matrix Analysis and its Applications — A Special Session for PRIMA 2017, Mexico, August 14–18, 2017 ..... 16

Contents continued on page 2.

MAT-TRIAD’2017 - International Conference on Matrix Analysis and its Applications, Poland, September 25–29, 2017 .....17

**Conference Reports**

2016 Western Canada Linear Algebra Meeting (WCLAM), Canada, May 14–15, 2016 .....17  
 The 25<sup>th</sup> International Workshop on Matrices and Statistics (IWMS-2016), Portugal, June 6–9, 2016 .....18  
 The 2016 International Workshop on Matrix Inequalities and Matrix Equations, China, June 8–10, 2016 .....20  
 Southeast Asian Mathematical Society (SEAMS) School Diliman on Topics in Matrix Analysis and Applications, Philippines, June 27 – July 7, 2016 .....20  
 The 2016 Workshop on Numerical Ranges and Numerical Radii, Taiwan, June 28–30, 2016 .....21  
 2016 Workshop on Matrices and Operators, Korea, July 3–6, 2016 .....22  
 The 20<sup>th</sup> ILAS Conference, Belgium, July 11–15, 2016 .....23

**ILAS News**

ILAS Member Honored by AMS .....25  
 2017 ILAS Taussky-Todd Lecturer .....25  
 ILAS and IWOTA introduce the Israel Gohberg Lecture .....25  
 ILAS Elections: Nominations .....25  
 ILAS Elections and Membership .....25

**Announcement**

2020 Householder Symposium .....26

**Book Announcement**

Infinite Matrices and Their Recent Applications, by Shivakumar, Zhang and Sivakumar .....26

**IMAGE Problem Corner: Old Problems with Solutions**

Problem 56-1: Minimizing Problem .....29  
 Problem 56-3: On Areas of Some Related Triangles .....29  
 Problem 56-4: A Determinant Inequality .....30

**IMAGE Problem Corner: New Problems**

Problem 57-1: Perfect Condition Number .....32  
 Problem 57-2: A Matrix Proof of an Exercise in Calculus .....32  
 Problem 57-3: A PSD Matrix Decomposition .....32  
 Problem 57-4: Factors of a Determinantal Polynomial .....32  
 Problem 57-5: Eisenstein Circulant Matrices .....32  
 Problem 57-6: A Commuting Matrix Problem .....32

---

**About *IMAGE***

ISSN 1553-8991. Produced by the International Linear Algebra Society (ILAS). Two issues are published each year, on June 1 and December 1. The editors reserve the right to select and edit material submitted. All issues may be viewed at <http://www.ilasic.org/IMAGE>. *IMAGE* is typeset using L<sup>A</sup>T<sub>E</sub>X. Photographs for this issue were obtained from websites referenced in articles, university department websites, as noted in the articles, or from reporters directly, unless indicated otherwise here: ILAS 2016 photos [p. 24] taken by Rob Stevens. Note: due to file size restrictions, photographs are not reproduced in their original quality.

**Advertisers:** Contact Amy Wehe ([awehe@fitchburgstate.edu](mailto:awehe@fitchburgstate.edu)).

**Subscriptions:** Contact ILAS Secretary-Treasurer Leslie Hogben ([hogben@aimath.org](mailto:hogben@aimath.org)) to subscribe or send a change of address for *IMAGE*. The cost to receive print copies of each issue of *IMAGE*, including ILAS membership, is \$60/year.

**Editor-in-Chief:** Kevin N. Vander Meulen, Department of Mathematics, Redeemer University College, Ancaster, ON, Canada, L9K 1J4 ([kvanderm@redeemer.ca](mailto:kvanderm@redeemer.ca)).

**Managing Editor:** Louis Deaett, Department of Mathematics, Quinnipiac University, Hamden, Connecticut 06518, USA. ([Louis.Deaett@quinnipiac.edu](mailto:Louis.Deaett@quinnipiac.edu)).

**Contributing Editors:** Minerva Catral ([catralm@xavier.edu](mailto:catralm@xavier.edu)), Michael Cavers ([mcavers@ucalgary.ca](mailto:mcavers@ucalgary.ca)), Douglas Farenick ([Doug.Farenick@uregina.ca](mailto:Doug.Farenick@uregina.ca)), Carlos Fonseca ([carlos@sci.kuniv.edu.kw](mailto:carlos@sci.kuniv.edu.kw)), Rajesh Pereira ([pereirar@uoguelph.ca](mailto:pereirar@uoguelph.ca)), Naomi Shaked-Monderer ([nomi@tx.technion.ac.il](mailto:nomi@tx.technion.ac.il)), David M. Strong ([David.Strong@pepperdine.edu](mailto:David.Strong@pepperdine.edu)), and Amy Wehe ([awehe@fitchburgstate.edu](mailto:awehe@fitchburgstate.edu)).

For more information about ILAS, its journals, conferences, and how to join, visit <http://www.ilasic.org>.