

Jane Rosamund Sangwine-Yager  
Curriculum Vita  
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## DEGREES

Ph.D. University of California, Davis 1978  
M.A. University of California, Davis 1974  
B.A. University of California, Davis 1972

## EMPLOYMENT

|            |  |                                 |
|------------|--|---------------------------------|
| present    | Professor  | Saint Mary's College            |
| Summer '98 | Instructor, C.T.I.E., Tangaza College,<br>Catholic University of East Africa | Nairobi, Kenya                  |
| 1995–2001  | Chairman, Mathematical Sciences  | Saint Mary's College            |
| 1994–1996  | Assistant to the Academic Vice President<br>for Strategic Planning           | Saint Mary's College            |
| 1993–1994  | Distinguished Visitor  | University of California, Davis |
| 1992–1985  | Associate Professor  | Saint Mary's College            |
| 1990–1988  | Distinguished Visitor  | University of California, Davis |
| 1989–1986  | Chairman, Mathematical Sciences  | Saint Mary's College            |
| Winter '86 | Visiting Professor   | Oklahoma University             |
| 1986–1985  | Associate Research Mathematician   | University of California, Davis |
| 1985–1983  | Chairman, Mathematics  | Saint Mary's College            |
| 1985–1978  | Assistant Professor  | Saint Mary's College            |

## PUBLICATIONS

Adapted convex bodies, preprint.  
Minkowski's inequalities for convex polytopes, preprint.  
Derivatives with respect to inner parallel bodies, preprint.  
A generalization of outer parallel sets of a convex set, *Proc. Amer. Math. Soc.*, **123**, No. 5 (1995), 1559-1564.  
A representation for volume involving interior reach, *Mathematische Annalen*, **298** (1994), 1-5.  
Mixed Volumes, *Handbook on Convex Geometry*, Eds. P.M. Gruber & J.M. Wills, Elsevier, Amsterdam (1993), 43-71.  
Stability in cap body inequality, *Geom. Dedicata*, **38** (1991), 347-355.  
The missing boundary of the Blaschke Diagram, *Amer. Math. Monthly*, **96**, No. 3 (1989),

233-237.

Bonnesen-style inequalities for Minkowski relative geometry, *Trans. Amer. Math. Soc.*, **307**, No. 1 (1988), 373-382.

A Bonnesen-style inradius inequality in 3-space, *Pacific J. Math.*, **134**, No. 1 (1988), 173-178.

The mean quermassintegral of simplices circumscribed about a convex body, *Geom. Dedicata*, **15** (1983), 47-57.

The mean value of the area of polygons circumscribed about a plane convex body, *Israel J. Math.*, **37**, No. 4 (1980), 351-363.

A generalization of Minkowski's inequality for plane convex sets, *Geom. Dedicata*, **8** (1979), 437-444 (with G. D. Chakerian).

## CONFERENCES AND PAPERS DELIVERED, Present – 1990

*Lewis Carroll's Puzzles*, California Math Council, Community Colleges, Monterey, December 1999.

*Adapted Convex Bodies*, Mathematisches Forschungsinstitut, Oberwolfach, Germany, December 1997.

One day presentation, San Joaquin Young Scholars Mathematics Summer Institute, National Science Foundation & California State University, Fresno, June 24, 1997.

*Lewis Carroll's Puzzles*, California Math Council, Community Colleges, Stateline, Nevada, April 1997.

*Adapted Convex Bodies*, Special Session on Harmonic Analysis and Convexity, A.M.S., Memphis, March 1997.

*Which Polyhedron is Best?*, Sonoma State University, November 1996.

*Isoperimetric Problems for Classes of Convex Sets*, Conference on Affine Geometry of Convex Sets, Dalhousie University, Canada, July 1996.

*The Isoperimetric Deficit for Polytopes*, Special Session on Convexity and Combinatorial Geometry, Joint Meeting of the American and Mexican Mathematical Societies, Guanajuato, Mexico, November 1995.

*Blaschke's Missing Inequality*, Santa Clara University, October 1995.

*Blaschke's Missing Inequality*, San Francisco State University, October 1995.

*Dual Stable Convex Bodies*, International Conference on Convexity, Université de Marne-la-Vallée, France, September 1994.

*Minkowski's inequality for bodies with corners and edges*, Special Session on Geometric Convexity, A.M.S., Brooklyn, April 1994.

*Minkowski's inequality for bodies with corners and edges*, Geometry and Topology Seminar, University of California, Davis, March 1994.

*When Changing Dimensions, Use Caution!*, San Jose State University, September 1993.

*A Generalization of Outer Parallel Sets*, Mathematisches Forschungsinstitut, Oberwolfach,

Germany, June 1993.

*The Legacy of Dido*, M.A.A. Northern California Section, Annual Meeting, University of California, Berkeley, February 1993.

Co-organizer, Special Session on Analytical methods in convexity, A.M.S., San Francisco, January 1991.

*A representation for volume involving interior reach*, Special Session on Analytical methods in convexity, A.M.S., San Francisco, January 1991.

Co-organizer, *Lesser known geometrical gems*, M.A.A. session for contributed papers, San Francisco, January 1991.

*Stability in a cap body inequality*, Mathematisches Forschungsinstitut, Oberwolfach, Germany, July 1990.

## AWARDS & FELLOWSHIPS

De La Salle Award, Saint Mary's College of California, January 1998

James Irvine Foundation, Faculty Fellow of the Futures Project, 1995–1997, and co-author of *Feasibility Study for a Consortium of Northern California Independent Colleges & Universities*, October 1996, \$130,000.

Lilly Foundation, Workshop for the Liberal Arts, participant and co-author of *Liberal Education and the Core Curriculum at Saint Mary's College*, Summer 1994.

National Science Foundation Career Advancement Award, *Curvature Measures and Tangential Bodies*, DMS 9306993, 1993–1994, \$20,364.

Association for Women in Mathematics, travel grant to Oberwolfach, July 1990, \$600.

National Science Foundation Research Initiation Grant, *Stability in Geometric Inequalities for Convex Bodies*, DMS 3802674, 1988–1990, \$33,400.

Community Teaching Fellowship, University of California, Davis, 1972.

## ACTIVITIES WITH PROFESSIONAL ORGANIZATIONS

Mathematics Association of America, member, Northern California Section, Chair/Program Chair, 1987–88.

Panel Speaker, The Johns Hopkins University Center for Talented Youth, College Colloquium, University of California, Davis, Fall 1997–present.

Math Reviews, reviewer, 1999–1986.

Woman and Math Lectureship Program (M.A.A./IBM), participant, (lectures in elementary schools), 1988–1979.