

Michael P. Saclolo, PhD
Curriculum Vitae

St. Edward's University (NSCI)
3301 South Congress Avenue
Austin, TX 78704

(512) 233-1672
mikeps@stedwards.edu

ACADEMIC and PEDAGOGICAL AREAS of INTEREST

Mathematics and the Humanities, History of Mathematics, Algebraic Geometry, Quantitative Literacy, and World Languages

ACADEMIC APPOINTMENTS

St. Edward's University: Assistant Professor, 2002; Associate Professor 2007; Professor 2018

EDUCATION

Doctor of Philosophy, Mathematics, University of California at Santa Barbara
Dissertation- The Cone of Curves of an Algebraic Surface

Master of Arts, Mathematics, University of California at Santa Barbara

Master of Arts, French, University of California at Berkeley

Bachelor of Arts, French and Mathematics, University of California at Berkeley

PUBLICATIONS

Journal, Periodical, or Book Articles and Artwork

- ◇ Stitching Dedekind Cuts to Construct the Real Numbers (2023). In *Teaching Undergraduate Mathematics with Primary Historical Sources: Projects for Real Analysis, Topology, and Complex Variables*, pp.106-120. Barnett et al., eds. Classroom Materials Series, an AMS/MAA Imprint, pp. 106-120. (An earlier version (2021) was also published in the TRIUMPHS Digital Commons at Ursinus College page.)
- ◇ Euler Archive Spotlight: Translations of Euler's Works to Languages other than English (2023). *Euleriana*. Vol. 3, Iss. 2, pp. 186-193.
- ◇ Things Certain and Uncertain(2023). *Convergence*. Vol. 20.
- ◇ Euler and Venus' Suspicious Moon (2023). *Euleriana*. Vol. 3, Iss. 1, pp. 36-41.
- ◇ Mathematopia: A Humanistic Math-Themed Freshman Seminar (2021). In *Mathematical Themes in a First-Year Seminar*, pp. 113-131. Schaeffer et al., eds. MAA Notes Series, Mathematical Association of America.
- ◇ A History and Translation of Lagrange's "Sur quelques problèmes de l'analyse de Diophante" (2021, Co-Authored with C. Goff). *Euleriana*. Vol. 1, Iss. 1, pp. 62-87.
- ◇ Design and Implementation: Transparency and Problem-Based Learning at St. Edward's University (2016, Co-Authored with J. Musselman, C. Lock, C. Long, and S. Loughran). *Peer Review*. Association of American Colleges & Universities. Vol. 18, No. 1/2, pp. 28-30.

- ◇ How a Medieval Troubadour Became a Mathematical Figure(2011). *Notices of the American Mathematical Society*. Vol. 58, Iss. 5, pp. 682–687.
- ◇ Ohne Titel. Pastel on Paper. Private Collection. *Sorin Oak Review* 2004. Vol. 14, p. 17. St. Edward's University.

Course Material

- ◇ Stitching Dedekind Cuts to Construct the Real Numbers. *Analysis*. (2021) 15.

Euler Translations

- ◇ Reflections of Mr. L. Euler on New Experiments in Optics, Communicated to the Academy of Sciences by Mr. Wilson. Translated from French, 2017. Available in the Euler Archive (index number E487).
- ◇ Essay Concerning a Metaphysical Demonstration of the General Principle of Equilibrium. Translated from French (with Abigail Jones), 2017. Available in the Euler Archive (index number E200).
- ◇ Calculations on Aerostatic Balloons Made by the Late Mr. Leonhard Euler as They Were Found on His Blackboard, After His Death on September 7, 1783. Translated from French and Latin, 2017. Available in the Euler Archive (index number E579).
- ◇ Physical Investigations on the Nature of the Smallest Parts of Matter, by Leonhard Euler. Translated from French (with Peter Wake), 2011. Available in the Euler Archive (index number E91).
- ◇ Reflections on Space and Time, by Leonhard Euler. Translated from French (with Peter Wake), 2009. Available in the Euler Archive (index number E149).
- ◇ On the Principle of Least Action, by Leonhard Euler. Translated from French (with Peter Wake), 2008. Available in the Euler Archive (index number E198).

Contributions to the Encyclopedia of Diderot and D'Alembert Collaborative Translation Project

Translations from French to English of the following Entries in *The Encyclopedia of Diderot & d'Alembert Collaborative Translation Project*. Ann Arbor: Michigan Publishing, University of Michigan Library:

- i) Mellona. ii) Proportional arithmetic mean. iii) Root of a number. iv) Saddlebag.

CONFERENCE, SEMINAR, PANEL PRESENTATIONS, and WORKSHOP ORGANIZATION

- ◇ Learning from History: Teaching with Primary Source Projects in Your Mathematics Classroom (Workshop), MathFest, Philadelphia, PA, August 2022. (With co-organizers Abe Edwards, Dominic Klyve, and Danny Otero.)
- ◇ Journey to Holy Cross: A Faculty Conversation About Our Shared Mission (Panel), St. Edward's University Teaching Symposium, August, 2019. (With co-panelists Peter Beck, Emily Bernate, Steven Fletcher, Katherine Lopez, and Mity Myhr.)
- ◇ Euler's Imprint on the French Enlightenment through the Encyclopédie of Diderot and d'Alembert, The Euler Society Conference, Adelphi University, Garden City, NY, July 2016.
- ◇ Advancing Underserved Student Success through Problem-Based Learning and Transparency Teaching Practices (Invited Panelist), Featured Session, Annual Meeting of the American Association of American Colleges and Universities, Washington, D.C., January 2016.

- ◇ Getting Students Ready for Integrative Learning (Invited Panelist), Concurrent Session, Pre-Meeting Symposium of the Annual Meeting of the Association of American Colleges and Universities, Washington, D.C., January 2016.
- ◇ Using an Online Interactive Tool in an Assignment on Percent, Joint Mathematics Meetings, MAA Session on Infusing Quantitative Literacy into Mathematics and Nonmathematics Courses I, San Antonio, TX, January 2015.
- ◇ The Rules and Regulations of the Berlin Academy at the Time of Euler's Tenure, The Euler Society Conference, St. Edward's University, Austin, TX, July 2014.
- ◇ Euler's Method for a Plentiful Harvest, MAA MathFest, Session on History and Philosophy of Mathematics, Hartford, CT, August 2013.
- ◇ Finding an Elephant in the Moon: Euler's Translation of Baudouin de Guémadeuc's Treatises on the "Satellite" of Venus, The Euler Society Conference, Adelphi University, Garden City, NY, July 2012.
- ◇ Equilibrium According to Euler, The Euler Society Conference, Carthage College, Kenosha, WI, July 2011.
- ◇ Euler on Cases when $x^4 + mx^2y^2 + y^4$ Can Be Reduced to a Square, The Euler Society Conference, Adelphi University, Garden City, NY, July 2010.
- ◇ Calculus Laboratory: A Companion Course to the Lecture, Joint Mathematics Meetings, MAA Session on General Contributed Papers IX, San Francisco, CA January 2010.
- ◇ Euler's Understanding of the Smallest Parts of Matter, The Euler Society Conference, Roger Williams University, Bristol, Rhode Island, July 2009.
- ◇ Calculus Lab: A Companion Course to the Lecture, Texas Section of the Mathematical Association of America, University of North Texas, Denton, Texas, April 2009.
- ◇ How a Medieval Troubadour Became a Mathematical Figure, Joint Mathematics Meetings, MAA Session on Mathematical Connections in the Arts, Washington, D.C., January 2009.
- ◇ Euler: His Life and Work, Saturday Morning Math Group (Invited Speaker), Department of Mathematics, University of Texas, Austin, April 2007.
- ◇ When is a Cube a Cube? St. Edward's University, School of Natural Sciences (NSCI) Seminar, October 2006.
- ◇ Mathematics and the Creation of Literature, Joint Mathematics Meetings, MAA Session on Mathematical Connections in the Arts, San Antonio, Texas, January 2006.
- ◇ Mathematical Approaches to Biological Problems: Phylogenetic Trees, St. Edward's University, NSCI Seminar, November 2005.
- ◇ Bayesian Analysis, St. Edward's University, Bioinformatics Seminar, February 2005.
- ◇ The Mathematics of Phylogenetic Trees, St. Edward's University, Bioinformatics Seminar, November 2004.

WORKSHOPS, SPECIAL COURSES, and INSTITUTES (Participant)

- ◇ Enhance Your Differential Equations Course with Modeling, MAA Minicourse (virtual), April 15, 2021.
- ◇ *How to Read Historical Mathematics* Book Discussion Series (virtual), organized by the TRIUMPHS project team, May 18 and 25, 2021.
- ◇ Third Wednesday Primary Source Project Discussion Series (virtual), organized by the TRIUMPHS project team, June 17, July 15, August, September 16, 2020.
- ◇ SEU Summer 2020 Virtual Workshops (19 Events), Summer 2020.
- ◇ VALUE Calibration Training for the Critical Thinking VALUE Rubric of the Association of American Colleges and Universities (asynchronous and remote/virtual), May, June 2019.

- ◇ Transforming Instruction in Undergraduate Mathematics via Primary Historical Sources Training Workshop, University of Colorado Denver, September 13-15, 2018.
- ◇ Out of Many, One: An Introduction to Moduli, Park City Mathematical Institute, Undergraduate Faculty Program, organized by the Institute of Advanced Study, Park City, Utah, June-July 2015.
- ◇ Reading, Writing and Doing the History of Mathematics, MAA Short Course, Joint Mathematics Meetings, Baltimore, Maryland, January 2014.
- ◇ Humanistic Mathematics, MAA Minicourse, Joint Mathematics Meetings, Baltimore, Maryland, January 2014.
- ◇ Teaching and Assessing Writing and Presentations: Collaborative Development of Pedagogy, MAA Minicourse, Joint Mathematics Meetings, San Diego, California, January 2013.
- ◇ The Mathematics of the Common Core, MAA Minicourse, Joint Mathematics Meetings, San Diego, California, January 2013.
- ◇ The Mathematics of Islam and its Use in the Teaching of Mathematics, MAA Minicourse, Joint Mathematics Meetings, Washington, D.C., January 2011.
- ◇ Learning Discrete Mathematics via Historical Projects, MAA Minicourse, Joint Mathematics Meetings, Washington, D.C., January 2011.
- ◇ St. Edward's University Faculty Institute on Globalization and Society, Salado, Texas, May-June 2009.
- ◇ Directing Undergraduate Research, MAA Minicourse, Joint Mathematics Meetings, Washington, D.C., January 2009.
- ◇ Expository Writing in Mathematics, Mathematical Association of America (MAA) Professional Enhancement Program (PREP), The Carriage House, Washington, D.C., July 2008.
- ◇ Danish Language, Culture and Society, The International People's College, Helsingør, Denmark, July-August 2007.
- ◇ Leonhard Euler—Looking Back After 300 Years, MAA Short Course, Joint Mathematics Meetings, New Orleans, Louisiana, January 2007.
- ◇ Exploring Multivariable Calculus Using Maple, MAA PREP, On-line, July 2006.
- ◇ Viewpoints: Math and Art, Franklin and Marshall College, Lancaster, Pennsylvania, June 2006.
- ◇ Combinatorially Thinking, MAA Minicourse, MathFest, Knoxville, Tennessee, August, 2006.
- ◇ Euler, MAA Minicourse, MathFest, Knoxville, Tennessee, August 2006.
- ◇ Computational and Mathematical Biology, MAA PREP, Harvey Mudd College, Claremont, California, August 2005.
- ◇ Mathematical Biology, Park City Mathematical Institute, Undergraduate Faculty Program, organized by the Institute of Advanced Study, Park City, Utah, June-July 2005.
- ◇ Education Dissemination: Reaching Out, Connecting, and Knitting-Together, National Science Foundation Chautauqua Short Courses for College Teachers, University of Texas, Austin, May 2005.
- ◇ Intensive Course in German, Goethe Institute, Dresden, Germany, July-August 2004.
- ◇ Geometric Combinatorics, MAA PREP, Mathematical Sciences Research Institute, Berkeley, California, May 2004.
- ◇ Abandoning Dead Ends: Presenting the Heart of Mathematics to All Students, National Science Foundation Chautauqua Short Courses for College Teachers, University of Texas, Austin, May 2004.
- ◇ Advanced School in Basic Algebraic Geometry, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy, July 2003.

CONFERENCES, MEETINGS, and SYMPOSIA (Attendee)

- ◇ Mathematical Cultures and Practices XI (virtual), University of St. Andrews, Scotland, July 10-12, 2021.
- ◇ Joint British Society for the History of Mathematics and Canadian Society for History and Philosophy of Mathematics Annual Meeting (virtual), coordinated through the University of St. Andrews, Scotland, July 12-15, 2021.
- ◇ Central Texas Math Summit, November 5, 2021 (Orientation, October 29, 2021).
- ◇ Convocation of the Holy Cross Institute (virtual), St. Edward's University, April 15-18, 2021.
- ◇ The Euler Society Conference, 2010, 2011, 2012, 2013, 2014, 2016.
- ◇ Joint Meetings of the American Mathematical Society and the Mathematical Association of America, 2006, 2009, 2010, 2011, 2013, 2014, 2015, 2018, 2019.
- ◇ Texas Section Meeting of the Mathematical Association of America, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2013, 2014, 2018, 2019, 2021 (virtual).
- ◇ Texas Undergraduate Mathematics Conference, 2013, 2015.
- ◇ MathFest, Mathematical Association of America Summer Meeting, 2006, 2013, 2022.
- ◇ Mathematical Biology and Dynamical Systems, University of Texas, Tyler, October 2005.
- ◇ Mt. Baldy Mathematics Conference, "Geometry, Algebra, and Phylogenetic Trees", Harvey Mudd College, Claremont, California, October 2004.

FELLOWSHIPS, GRANTS, and AWARDS

- ◇ Deutscher Akademischer Austausch Dienst (DAAD) Learn German in Germany Grant, Summer 2004, 2013.
- ◇ NSF-STEP Grant, Math and Science Living and Learning Community, (Institutional) 2010, 2013, 2014.
- ◇ Education Advancement Foundation Grant, Calculus Lab, (Institutional) 2008.
- ◇ SEU Internal Grants: Presidential Excellence Grant (2003, 2005); SPICE (2013)
- ◇ SEU Distinguished Teaching Award (2009), and was nominated by SEU for the Piper Professor Award.

UNDERGRADUATE RESEARCH PROJECTS and THESES SUPERVISED

- ◇ *Trenton Barnett*. Topic: Optimizing Paths through the Plane with Obstacles. Presentation at SEU Senior Seminar (2017).
- ◇ *William Beard*. Topic: Partitioning points in Euclidean space and Convex Sets. Presentations at Texas Section Meeting of the MAA (2006), and SEU Senior Seminar (2006).
- ◇ *R. Andrew Cabezas*. Topic: Rational Cuboids. Presentations at Texas Section Meeting of the MAA (2004), Texas Academy of Sciences Meeting (2004), and SEU Senior Seminar (2004).
- ◇ *Adam J. Castillo*. Topic: Pandiagonal Magic Squares. Presentations Texas Section of the MAA (2008, Prize) at SEU Senior Seminar (2008).
- ◇ *Li-Chun Chao*. Topic: Power Indices in a Voting System. Presentation at SEU Senior Seminar (2015).
- ◇ *M. Fred Deutsch*. Topic: Optimization and Origami. Presentations at Texas Section Meeting of the MAA (2006, Prize) and SEU Senior Seminar (2006).
- ◇ *Toni Galvan*. Topic: Ranking Sports Teams. Presentation at SEU Senior Seminar (2017).

- ◇ *Jennifer Garcia Villanueva*. Topic: Lattice Point Visibility in a Plane. Presentation at SEU Senior Seminar (2019).
- ◇ *Bobby Grizzard*. Topic: Perron's Theorem and Sperner's Lemma. Presentations at Texas Section Meeting of the MAA (2007), Texas Oklahoma Undergraduate Research Symposium (2007), and SEU Senior Seminar (2007).
- ◇ *Nico Hyde*. Topic: Discrete Dynamical System Arising from Folding. Poster presentation at JMM (2015). Presentations at Texas Section Meeting of the MAA (2015) and SEU Senior Seminar (2015).
- ◇ *Sam Johnson*. Topic: Dynamics of Folding a Plane. Presentations at Texas Undergraduate Mathematics Conference (2019) and SEU Senior Seminar (2020).
- ◇ *Nayma Kim*. Topic: Musical Cryptography. Poster Presentation at JMM (2022). Presentation at Texas Section Meeting of the MAA and at SEU Senior Seminar (2022).
- ◇ *Aaron Kupper* (ACC), *Ivan Mota*, and *Bianca Salinas*. Topic: Generating Functions of Pell and Pell-Lucas Numbers. SEU Poster Presentation (2016).
- ◇ *Munabo Lwali*. Topic: Convex Sets, Largest Unit Octagon. Presentation SEU Senior Seminar (2005).
- ◇ *John Nagorski*. Topic: Game Theory, Tragedy of the Commons. SEU Senior Honors Thesis (2008). Presentation at SEU Honors Symposium (2008).
- ◇ *Daliah Maurer*. Topic: Dynamics of HIV Infection. Presentation at SEU Senior Seminar (2006).
- ◇ *Ivan Mota*. Topic: Generating Functions of Generalized Fibonacci Sequences. Presentations at Texas Section Meeting of the MAA (2018, Prize) and SEU Senior Seminar (2019).
- ◇ *Nicholas Phan*. Topic: Analysis of the Card Game Mousetrap. Presentation at SEU Senior Seminar (2021).
- ◇ *Natali Ramirez*. Topic: Probabilities related to Lotería. Presentation at TUMC (2022).
- ◇ *Michael Rivera*. Topic: Probabilistic Measure of Convexity. Presentations at Texas Section Meeting of the MAA (2013) and SEU Senior Seminar (2013).
- ◇ *Cecili Rodriguez*. Topic: Mathematics in the Game SET. Presentation (Talk and Poster) at SEU (2014).
- ◇ *Anna Schulmeyer*. Topic: Mathematics of Rolled Dice. Presentation at SEU Senior Seminar (2021).
- ◇ *Daniel Taylor*. Topic: Minimizing Paths in Convex Sets. Presentation at SEU Senior Seminar (2009).
- ◇ *Stephanie Thrash*. Topic: Discrete Dynamical Systems Arising from Folding and Calculating Convexity Coefficients, Presentation at SEU (2015).
- ◇ *Dung Tran*. Topic: Diophantine Equations. Presentation at SEU Senior Seminar (2005).
- ◇ *Madeline Wheeler*. Topic: Modeling Basketball Free Throws. Presentation at SEU Senior Seminar (2014).
- ◇ *Stacey Worrell*. Topic: Modeling with Bézier Splines. Presentation at Senior Seminar (2004).
- ◇ *Paul Wright*. Topic: Distributed and Reverse Elliptic Curve Primality Proving. Presentation at Texas Section of the MAA (2011, Prize, and 2012), and SEU Senior Seminar (2012).
- ◇ *Sydney Zucker*. Topic: Trigonometry under Different Metrics. Presentations at Texas Section Meeting of the MAA (2018) and SEU Senior Seminar (2018).

PROFESSIONAL MEMBERSHIPS and ACTIVITIES

Member: Mathematical Association of America; The TRIUMPHS Society; The Euler Society.

Editorial Board of *Euleriana*, 2020-Present.

Co Editor-in-Chief of the *Annals of the TRIUMPHS Society* (In Development, Launching in Fall 2024).

LANGUAGES

Note: Self-assessed proficiency ratings.

- ◇ Native (bilingual) proficiency: English, Tagalog (Filipino)
- ◇ Full professional proficiency: French
- ◇ Professional proficiency: German, Latin
- ◇ Limited professional proficiency: Italian, Russian
- ◇ Elementary proficiency: Arabic, Danish, Japanese, Spanish