

EDUCATION

Ph.D. Mathematics, Mathematics Education Specialization August 2008

Montana State University, Bozeman, MT

Dissertation: "Teachers' Beliefs regarding Effective Teaching Strategies for American Indian Students in Mathematics" Advisor: Dr. Maurice Burke

Comprehensive Examination Areas: General Topology, Geometric & Algebraic Topology; Mathematics Education; Educational Statistics; & Research Methodology in Education.

M.S. Mathematics October 2002

University of Oulu, Finland

"On the Calculation of Volume and Area & Students' Spatial Thinking of 3-Dimensional Solids" Thesis Advisors: Dr. Berkovits J. & Dr. Keranto, T. Minors: Physics & Education

ACADEMIC PROFESSIONAL EXPERIENCE

- **University of Texas at San Antonio, Lecturer III, Jan 2014-Present**
Courses Taught: *Essential Elements for Mathematics I & II; College Algebra; College Algebra (Pilot for Elementary Teachers); Basic Mathematics*
- **University of Cantabria, Santander, Spain, Faculty Professor, Sept 2011 – Sept 2013**
Courses Taught: *Didáctica de la Geometría (Geometry for Elementary Teachers)*
- **Saint Louis University, Madrid Campus, Spain, Faculty Professor, Aug 2007 – June 2011**
Courses Taught: *Intermediate Algebra; College Algebra, Pre-Calculus; Math Thinking in the Real world*
- **Montana State University, Bozeman Graduate Teaching Assistant Sept 2003 – May 2004**
Courses Taught: *Algebra for College Students; Pre-Calculus*

OTHER PROFESSIONAL EXPERIENCE

- **NSF-Center for Learning and Teaching in the West, MT, Teacher Leader, Jan 2004 – Jul 2007**
Professional Development with Math teachers (K-12) Crow and Northern Cheyenne Reservations (Inquiry-Based Mathematics Teaching, Standard Based Mathematics, Teaching, Backward Design, Critical Friends, Lesson Study)
- **Hewlett-Packard Technology Grant. NSF-CLTW, MT, Teacher Leader, Nov 2003 – Dec 2005**
Professional Development with Math teachers (K-12) Crow and Northern Cheyenne Reservations (Effective use of technology in the Math/Science classroom, Microsoft Office app. -Word, Excel, Power Point-, Appropriate use of the internet in the classroom, Integration of CBLs in the classroom)

- **Montana State University & USDA Higher Education Challenge Grant. MT USA & Mali, Africa, Lead Evaluator** Mar 2004 – May 2004
Field Evaluation of the Collaborative Research Support Program “Discover-Based Undergrad Opportunities” students’ field experience.

PUBLICATIONS & CONFERENCE PROCEEDINGS

- Kalinec-Craig, C., Prasad, P.V., & **Vallines Mira, R.** (2020). *Supporting elementary mathematics teacher candidates' use of divergent formative assessment*. In Martin, C., Polly, D., & Lambert, R. (Eds.). *Handbook of Research on Formative Assessment in Pre-K Through Elementary Classrooms* (pp. 226-253). Hershey, PA: IGI Global.
- Kalinec-Craig, C. A., Prasad, P.V., **Vallines Mira, R.**, & Walls, C. B. (2019). *Unpacking the algorithm: Rethinking elementary pre-service teachers' strategies for solving multi-digit addition problems*. *IUMPST (Issues in the Undergraduate Mathematics Preparation of School Teachers): The Journal*. Vol 1 (Content Knowledge), 1-15.
- Liang, S., **Vallines Mira, R.**, Prasad, P.V., & Patterson, C. (2019). *Improving our practice as mathematics teacher educators through teaching research*. *International Journal of Scholarship of Teaching and Learning*, 13(2). 1-15.
- Prasad, P.V., Barron, V.J., & **Vallines Mira, R.** (2019). *Toward a practice-based framework for developing preservice elementary teachers' mathematical authority*. *Proceedings of the 41th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. St. Louis, MO: University of Missouri & University of Missouri - St. Louis.
- Prasad, P.V., **Vallines Mira, R.**, Patterson, C., & Liang, S. (2018). *Task design and revision as a vehicle for developing mathematical knowledge for teaching teachers*. In T.E. Hodges, G. J. Roy, & A. M. Tyminski, (Eds.), *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Greenville, SC: University of South Carolina & Clemson University.
- Diego-Mantecón, J. M., Graña, C., Blanco, T. F., **Vallines Mira, R.**, & Diego, M. A. (2016). *Las Creencias del Profesor de Matemáticas y Su Influencia en la Práctica Docente*. En J. A. Macías, A. Jiménez, J. L. González, M. T. Sánchez, P. Hernández, C. Fernández, F. J. Ruiz, T. Fernández y A. Berciano (Eds.) *Investigación en Educación Matemática XX* (p. 593). Málaga SEIEM. Retrieved from <https://www.seiem.es/docs/actas/20/ActasXXSEIEM.pdf>
- **Vallines Mira, R.** (2013). *Linking Research and Practice in Mathematics Education*. In y. N. C. A. Estepa (Ed.), *Investigación en Educación Matemática. Comunicaciones de los grupos de investigación. XVI Simposio de la SEIEM* (pp. 77–79). Retrieved from <http://www.seiem.es/docs/actas/20/ActasxxSEIEM.pdf>

SELECTED PRESENTATIONS

- **What Can Mathematics Teacher Educators Do to Develop Their Knowledge Bases?**
with Priya Prasad, Cody Patterson, & Su Liang, National Council of Teachers of Mathematics Research Conference, Apr. 2019, San Diego, CA.
- **Continuously Improving Mathematics Content Courses for PSTs and MTEs**
with Priya Prasad, Cody Patterson, & Su Liang, Association of Mathematics Teacher Educators – Texas (AMTE-TX), Sep. 2018, Nacogdoches. TX.
- **Learning to Teach Preservice Teachers Similarity Through Teaching Research**
with Su Liang, Priya Prasad, & Cody Patterson, Association of Mathematics Teachers and Educators (AMTE), Feb. 2018, Houston, TX
- **Studying Ourselves as We Improve Our Teaching**
with Cody Patterson & Priya Prasad, Association of Mathematics Teachers and Educators (AMTE) Feb. 2017, Orlando, FL.
- **Rethinking Elementary Preservice Teachers' Addition Strategies**
with Crystal Kalinec-Craig, Priya Prasad, & Carey Walls, National Council of Teachers of Mathematics Research Conference, Apr. 2016, San Francisco, CA.
- **Linking Research and Practice in Mathematics Education.**
Presentation given at the XVI Symposium of the Royal Society of Research in Mathematics Education. Baeza, Jaén, Spain. September 20, 2012
- **Sharing Your Practice: A Professional Development Model for Teachers in Rural, Isolated, Schools in a Professional Learning Community.**
With Karma Nelson, Presentation given at the National Council of Supervisors of Mathematics, Atlanta, Georgia, USA. March 20, 2007.
- **Teachers' Beliefs and Research Findings on Effective Teaching Strategies for American Indians in Mathematics.**
Presentation given at the Indian Education for all Best Practice Conference Bozeman, MT, USA. May 7, 2007.
- **Sharing Your Practice: A Professional Development Model for Teachers in Rural, Isolated, Schools in a Professional Learning Community.**
With Karma Nelson, Presentation given at the Hardin District Administration Board, Hardin, Montana, USA. March 1, 2007.

OTHER TEACHING EXPERIENCE (NON – ACADEMIC)

- **Irving International School, Bozeman, MT, USA**
Teacher Assistant: Mathematics Grades 4 & 5, Jan 2007 - May 2007
Teacher Internship: Mathematics Grades 4 & 5, Sept 2006 - Dec 2006
Continental Math League Coach: Mathematics Grades 4 & 5, Sept 2006 - Dec 2006
- **International School of Oulu, Finland**
Teaching Internship: Mathematics & Physics Grades 9 & 10 Sept 2001 – May 2002
- **Oulun Lyseo High School, Oulu, Finland (International Baccalaureate program)**
Teaching Internship: Mathematics & Physics Grades 11 & 12, Sept 2001 – May 2002

FELLOWSHIPS & RESEARCH GRANTS

- **NSF - Center for Learning and Teaching in the West, USA.** Doctoral Fellow, Research Assistant
September 2003 – August 2008
- **Montana Office of Public Instruction, MT, USA.** Indian Education for All (Graduate Research Stipends) *Dissertation Research Support.* September 2003 – August 2008

GRANTING ACTIVITIES

FUNDED:

- Vallines Mira, R. (**Co-Principal**), Prasad, P.V. (Principal, 25%), Patterson, C. (Co-PI), & Liang, S (Co-PI). "*Sawtelle Financial Teaching Innovation Grant*," Sponsored by Sawtelle Financial, UTSA, \$3,000. (Jun. 2017 - May 2018).

NOT FUNDED:

- Vallines Mira, R. (**Co-Principal**), Prasad, P.V. (Principal, 35%), Patterson, C. (Co-PI), Liang, S. (Co-PI), "*Ex-ploring Continuous Improvement in Teacher Education*," Sponsored by National Science Foundation, Federal, \$299,683.00. (January 1, 2019 - December 31, 2020).
- Vallines Mira, R. (**Co-Principal**), Prasad, P.V. (Principal, 40%), Patterson, C. (Co-PI), Liang, S. (Co-PI), "*De-veloping the Knowledge Base of Mathematics Teacher Educators*," Sponsored by Spencer Foundation, National, \$49,991.00. (May 1, 2018 - April 30, 2019). Resubmission.
- Vallines Mira, R. (**Co-Principal**), Prasad, P.V. (Principal, 40%), Patterson, C. (Co-PI), Liang, S. (Co-PI), "*De-veloping the Knowledge Base of Mathematics Teacher Educators*," Sponsored by Spencer Foundation, National, \$40,926.00. (June 1, 2017 - May 31, 2018).

COURSES TAUGHT AT UTSA

- MATH 1153 Essential Elements of Mathematics I (3cr) – 14 Semesters / 16 Sections
- MATH 1163 Essential Elements of Mathematics II (3cr) – 14 Semesters / 27 sections
- MATH 1023 College Algebra w/ Applications (3cr) – 2 Semesters / 2 Sections
- MATH 1023 College Algebra w/ Applications (Pilot for Elementary Teachers) (3cr) – 1 Semester / 1 Section
- MATH 0203 Basic Mathematics (3cr) – 3 Semesters / 5 Sections

SERVICE AT UTSA

- Course Coordinator MATH 1153 Essential Elements of Mathematics I (2017 – Present)
- Course Coordinator MATH 1163 Essential Elements of Mathematics II (2017 – Present)
- Mathematics Education Search Committee Member, 2014 – 2015

COMMUNITY SERVICE AND OUTREACH (SAN ANTONIO)

- Guest Speaker, 2018 STEM Faculty Summer Institute, San Antonio College, May 2018
- Presenter, Expanding Your Horizons STEM Day, University of the Incarnate Word, April 2016
- Presenter, Expanding Your Horizons STEM Day, University of the Incarnate Word, May 2015