

Mathematics and Science  
Education,  
Faculty of Education,  
Bogazici University,  
Bebek, 34342, Istanbul, Turkey  
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**FATMA ASLAN-TUTAK**

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**EDUCATION**

01/05 - 12/09

**Ph.D in Curriculum and Instruction-Mathematics Education**  
**University of Florida**, School of Teaching and Learning, Gainesville,  
FL, USA.

**Title of Doctoral Dissertation:** A Study of Geometry Content  
Knowledge of Elementary Preservice Teachers: The Case of  
Quadrilaterals (Chair: Prof. Thomasenia L. Adams)

09/98 - 07/04

**Integrated BS&MS Program in Teaching Mathematics (1st Rank)**  
**Bogazici University**, Faculty of Education, Istanbul, Turkey

01/03 - 05/03

**Undergraduate Exchange Student**  
**State University of New York (SUNY) at Binghamton**, College of  
Liberal Arts and Science, Mathematics Department, Binghamton, NY,  
USA

**EXPERIENCES**

10/18 - present

**Associate Professor**  
Bogazici University, Istanbul, Turkey

01/16 - present

**Associate Dean**  
Faculty of Education, Bogazici University, Istanbul, Turkey

12/12 - 10/18

**Assistant Professor**  
Bogazici University, Istanbul, Turkey

05/10 - 12/2012

**Instructor**  
Bogazici University, Istanbul, Turkey

08/09 - 12/09

**Research Assistant**  
University of Florida, Gainesville, FL, USA  
Exploring African-American School Girls' Achievement in Science  
and Mathematics Education through Positionality

08/08 - 05/09

**Research Assistant**  
University of Florida, Gainesville, FL, USA  
Florida Fund for Minority Teachers (FFMT)

08/08 - 08/09

**Teaching Assistant**  
University of Florida, Gainesville, FL, USA

- 08/08 – 05/09 **Teaching Assistant**  
University of Florida, Gainesville, FL, USA
- 08/06 – 08/07 **Teaching Assistant**  
University of Florida, Gainesville, FL, USA
- 08/05 – 07/06 **Research Assistant**  
University of Florida, Gainesville, FL, USA  
Project TALL Math (Teachers as Learners Learning Mathematics)
- 09/03 – 06/04 **Research Assistant**  
Bogazici University, Istanbul, Turkey

- 09/03 – 06/04 **Teacher**  
Ekrem Batuk Dershanesi, Istanbul, Turkey

### PROJECTS

- 2017- **School and Classroom Based Assessment: Strengthening Teachers Capacity**, Mathematics Education Expert, Researcher, UNICEF, Turkey
- 2017-2018 **Children of Bosphorus Getting to Know City through Sea II** (Nature and science summer school for gifted students) (TUBITAK, Project: 117B083), Researcher.
- 2016-2017 **Children of Bosphorus Getting to Know City through Sea** (Nature and science summer school for gifted students) (TUBITAK, Project: 116B417), Researcher,
- 2012-2015 **FIRSTMATH, The First Five Years of Mathematics Teaching** Turkish coordinator of the international comparative project on novice teachers
- 12/14-12/2016 **FIRSTMATH-Turkey (The First Five Years of Mathematics Teaching)** <http://firstmath.educ.msu.edu/> (Project Manager), Bogazici Research Fund, BU-BAP-8624
- 12/14-12/2016 **Integrating ‘Science, Technology, Engineering, and Mathematics (STEM) Education’ in Pre-service Chemistry and Mathematics Teacher Education** (Researcher), Bogazici Research Fund, BU-BAP, 14D03P2
- 03/11-03/13 **An Investigation on Specialized Content Knowledge of Preservice Secondary School Mathematics Teachers** (Project Manager) Bogazici Research Fund BU-BAP, 11D03P3
- 05/12-09/12 **Baba Beni Okula Gönder: Kız Yurtlarında Gelişim Odaklı Yaşam Alanı Oluşturma.** (A project on improving accommodation settings of school age girls , funded by a non-profit organization on supporting disadvantaged girls’ schooling, Researcher)

## PUBLICATIONS

**Peer-Reviewed International Journal Articles**

- 2017 Saraç, A.\*\* & **Aslan-Tutak, F.** (2017) The Relationship of Teacher Efficacy, and Students' Trigonometry Self-Efficacy and Trigonometry Achievement. *International Journal for Mathematics Teaching and Learning*, 18(1), 66-83.
- 2016 Akaygün, S. & **Aslan-Tutak, F.** (2016) STEM Images Revealing STEM Conceptions of Pre-Service Chemistry and Mathematics Teachers. *International Journal of Education in Mathematics, Science and Technology*, 4(1), 56-71.
- 2015 **Aslan-Tutak, F.** & Adams, T.L. (2015) A Study of Geometry Content Knowledge of Elementary Preservice Teachers. *International Electronic Journal of Elementary Education*, 7(3), 301-318.
- 2015 Arici, S.\*\* & **Aslan-Tutak, F.** (2015) The Effect of Origami-Based Geometry Instruction on Spatial Visualization, Geometry Achievement and Geometric Reasoning. *International Journal of Science and Mathematics Education*, 13(1), 179-200. 2011
- 2014 Browning, C. A., Edson, A. J., Kimani, P. M., **Aslan-Tutak, F.** (2014). Mathematical Content Knowledge for Teaching Elementary Mathematics: A Focus on Geometry and Measurement. *The Mathematics Enthusiast*, 11(2), 333-383.
- 2011 **Aslan-Tutak, F.** & Bondy, E. & Adams, T. L. (2011). Critical Pedagogy for Critical Mathematics Education. *International Journal of Mathematical Education in Science and Technology*, 42 (1), 65-74.
- 2008 Adams, T. L. & **Aslan-Tutak, F.** (2008). Venn diagram model for professional development for teachers of mathematics, *Southeastern Regional Association of Teacher Educators (SRATE) Journal*, 17(1), 19-24.
- 2005 Adams, T. L. & **Aslan-Tutak, F.** (2005). Serving up Sierpinski. *Mathematics Teaching in the Middle School*, 11(5): 248-253.

**Peer-Reviewed National Journal Articles**

- 2017 Ertaş, F.G.\*\* & **Aslan-Tutak, F.** (2017). Matematik Öğretmen Adaylarının Öğretmek için Matematik Bilgilerinin (ÖMB) TEDS-M Maddeleri ile Karşılaştırılması. *İnönü Üniversitesi Eğitim Fakültesi Dergisi*, 18 (3), 86-102.
- 2017 **Aslan-Tutak, F.**, Akaygun, S., & Tezsezen, S.\*\* (2017). İşbirlikli FeTeMM (Fen, Teknoloji, Mühendislik, Matematik) Eğitimi Uygulaması: Kimya ve Matematik Öğretmen Adaylarının FeTeMM Farkındalıklarının İncelenmesi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 32(4), 794-816.

- 2017 Karataş, F.I.\*\* & **Aslan-Tutak, F.** (2017). Lise Matematik Öğretmenlerinin Teknolojik Pedagojik Alan Bilgileri Ve Teknolojiyi Bütünleştirme Öz-Yeterlilikleri. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 14(37), 180-198.
- 2014 Kılıç,H., **Aslan-Tutak, F.** & Ertas, F.G.\*\* (2014). TIMSS Merceğiyle Ortaokul Matematik Öğretim Programındaki Değişiklikler. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 10(2), 129-141.

#### International Book Chapters

- 2009 **Aslan-Tutak, F.** & Ekmekci, A. (2009). Being a Cross-Cultural Mentor: Challenges and Suggestions. In G. Zimmerman, P. Guinee, L. M. Fulmore, E. Murray (Eds.) *Empowering Mentor of the Preservice Mathematics Teacher*, (p. 56). Reston, VA: National Council of Teachers of Mathematics.
- 2009 **Aslan-Tutak, F.** & Ekmekci, A. (2009). Being a Cross-Cultural Mentor: Challenges and Suggestions. In G. Zimmerman, P. Guinee, L. M. Fulmore, E. Murray (Eds.) *Empowering Mentor of the Beginning Mathematics Teacher*, (p. 65). Reston, VA: National Council of Teachers of Mathematics.
- 2009 **Aslan-Tutak, F.** & Ekmekci, A. (2009). Being a Cross-Cultural Mentor: Challenges and Suggestions. In G. Zimmerman, P. Guinee, L. M. Fulmore, E. Murray (Eds.) *Empowering Mentor of the Experienced Mathematics Teachers*, (p. 67). Reston, VA: National Council of Teachers of Mathematics.

#### National Book Chapters

- 2017 Akaygün, S. & **Aslan Tutak, F.** (2017). FeTeMM (Fen, Teknoloji, Mühendislik, Matematik) Eğitimi Yaklaşımı. Mustafa Ergun (ed.) *Fen Bilimleri Öğretiminde Yeni Yaklaşımlar (1-34)*, Nobel Akademik Yayıncılık (This book chapter introduces Integrated STEM education model for Turkish audience and address how to implement it)
- 2016 **Aslan-Tutak, F.** & Köklü, O. \*\* (2016). Öğretmek İçin Matematik Bilgisi, İ. Ö. Zembat, E. Bingölbali, S. Arslan (Ed.) *Matematik Eğitiminde Teoriler*. PEGEM, Ankara. (This book chapter explains Mathematical Knowledge for Teaching, MKT, model for Turkish audience)
- 2013 **Aslan-Tutak, F.** (2013). *Tarihi ve Uygulama Alanları ile Logaritma Fonksiyonu*. İ. Ö. Zembat, M. F. Özmantar, E. Bingölbali, H. Şandır & A. Delice (Ed.) *Tanımları ve Tarihsel Gelişimleriyle Matematiksel Kavramlar (400-414)*, PEGEM, Ankara. (This book is collection of chapters written for teachers to deepen their content knowledge. This chapter is about history and applications of Logarithm Function)

\*\* Graduate Student

## PRESENTATIONS

## International

- 04/18** Investigation on Preservice Mathematics Teachers' Translation Between Representations: From Graph To Model. Pehlivan, Z.\*\* & **Aslan-Tutak, F.** *Annual Meeting of American Education Research Association (AERA)*, 2018, New York City, USA.
- 02/17** A Novice High School Teacher's Perception on The Effect of Content Course Taken as Preservice. **Aslan-Tutak, F.** & Durak, T.\*\* *10th Congress of the European Society for Research in Mathematics Education (CERME 10)*, 2017, Dublin, Ireland.
- 07/16** Preservice mathematics teachers interdisciplinary work for STEM education. **Aslan-Tutak, F.** & Akaygun, S. *13th Conference of International Congress on Mathematics Education (ICME-13)*, 2016, Hamburg, Germany.
- 07/16** Examining Turkish secondary mathematics teachers technological pedagogical content knowledge. Karataş, F.I\*\* & **Aslan-Tutak, F.** *13th Conference of International Congress on Mathematics Education (ICME-13)*, 2015, Hamburg, Germany.
- 02/15** Secondary mathematics teacher candidates' pedagogical content knowledge and the challenges to measure. F. G. Ertaş \*\* & **Aslan-Tutak, F.**, *9th Congress of the European Society for Research in Mathematics Education (CERME 9)*, 2015, Prague, Czech Republic.
- 02/15** An examination of secondary mathematics teachers' technological pedagogical content knowledge. F. İclal Karataş \*\* & **Aslan-Tutak, F.**, *9th Congress of the European Society for Research in Mathematics Education (CERME 9)*, 2015, Prag, Çek Cumhuriyeti.
- 02/15** Responding to student ideas' as an indicator of a teacher's mathematical knowledge in teaching. Köklü, O. \*\* & **Aslan-Tutak, F.**, *9th Congress of the European Society for Research in Mathematics Education (CERME 9)*, 2015, Prag, Çek Cumhuriyeti.
- 04/15** Shifting Focus from What You Say to What You Hear. Köklü, O. \*\* & **Aslan-Tutak, F.**, *Annual conference of National Council of Teachers of Mathematics (NCTM)*, 2015, Boston, USA.
- 05/15** Preservice Chemistry and Mathematics Teachers' Interdisciplinary Work in STEM Education. **Aslan-Tutak, F.** & Akaygun, S. *2nd International Conference On New Trends In Education. STEM Education: Establishing A Bridge Across Contexts*, 2015, İstanbul.
- 05/15** STEM Education in a Nutshell: A Two-Day Workshop for Teachers and Their Students. Akaygun, S., **Aslan-Tutak, F.** & Bayazit, N., Demir, K. & Kesner, J. E. *2nd International Conference On New Trends In*

*Education. STEM Education: Establishing A Bridge Across Contexts*, 2015, İstanbul.

- 05/15** Investigating Preservice Physics, Chemistry, and Mathematics Teachers Description of Science, Technology, Engineering and Mathematics in STEM Related Topics. Tezsezen, S. & **Aslan-Tutak, F.** *2nd International Conference On New Trends In Education. STEM Education: Establishing A Bridge Across Contexts*, 2015, İstanbul.
- 04/14** Adaptation Of Technological Pedagogical Content Knowledge (TPACK) And Technology Integration Selfefficacy Scale (TISE) Into Turkish. Karatas, F.I. & **Aslan-Tutak, F.** *International Conference on Education in Mathematics, Science & Technology (ICESMT)*, 2014, Konya.
- 02/13** Practice to Enhance Preservice Secondary Teachers' Specialized Content Knowledge. **Aslan-Tutak, F** & F. G. Ertas. \*\* B. Ubuz, C. Haser, M.A. Mariotti (Ed.) *8th Congress of the European Society for Research in Mathematics Education (CERME 8) Proceedings*, 2917-2926.
- 02/13** Investigating Teachers' Trigonometry Teaching Efficacy. Sarac, A.\*\* & **Aslan-Tutak, F.** B. Ubuz, C. Haser, M.A. Mariotti (Ed.) *8th Congress of the European Society for Research in Mathematics Education (CERME 8) Proceedings*, 1419-1428.
- 02/13** Using Origami to Enhance Geometric Reasoning and Achivement. Arici, S.\*\*, **Aslan-Tutak, F.** B. Ubuz, C. Haser, M.A. Mariotti (Ed.) *8th Congress of the European Society for Research in Mathematics Education (CERME 8) Proceedings*, 585-594.
- 07/12** Preservice Secondary School Mathematics Teachers' Specialized Content Knowledge of Complex Numbers. **Aslan-Tutak, F.** Paper presented at *12<sup>th</sup> conference of International Congress on Mathematics Education (ICME-12)*, 2012, Seoul, Korea.
- 07/12** The relation of teacher efficacy to students' Trigonometry self-efficacy and trigonometry achievement. Sarac, A.\*\*, **Aslan-Tutak, F.** Paper presented at *12<sup>th</sup> conference of International Congress on Mathematics Education (ICME-12)*, 2012, Seoul, Korea.
- 07/12** Origami based geometry instruction on high school level: Its effect on spatial visualization, geometry achievement and geometric reasoning. Arici, S.\*\*, **Aslan-Tutak, F.** Poster presented at *12<sup>th</sup> conference of International Congress on Mathematics Education (ICME-12)*, 2012, Seoul, Korea.
- 07/12** The Preservice Teachers' Perception of Rationality and Irrationality. Ertas, G.\*\*, **Aslan-Tutak, F.** Poster presented at *12<sup>th</sup> Conference of International Congress on Mathematics Education (ICME-12)*, 2012, Seoul, Korea.

- 10/11** Geometry and Measurement Content Knowledge of Preservice K-8 Mathematics Teachers: A Synthesis of Research. Browning, C. A., Edson, A. J., Kimani, P. M., **Aslan-Tutak, F.** Paper presented at *Annual Conference of Psychology of Mathematics Education-North America (PME-NA)*, 2011, Reno, USA.
- 07/11** Addressing Preservice Teachers' Needs of Geometry Content Knowledge: A Qualitative Study to Transform Theory into Practice. **Aslan-Tutak, F.** Paper presented at *Annual Conference of Psychology of Mathematics Education (PME-35)*, 2011, Ankara, Turkey.
- 02/11** Preservice Elementary Teachers' Geometry Content Knowledge in Methods Course. **Aslan-Tutak, F.** Paper presented at *7th Congress of the European Society for Research in Mathematics Education (CERME)*, 2011, Rzeszow, Poland.
- 11/10** Mixed Research on Preservice Elementary Teachers' Geometry Content Knowledge. **Aslan-Tutak, F.** Paper presented at *International Conference on New Trends in Education and Their Implications (ICONTE)*, 2010, Antalya, Turkey.
- 09/09** Analysis of Geometry Learning Stories of Elementary School Preservice Teachers. **Aslan-Tutak, F.** Poster presented at *Annual Conference of Psychology of Mathematics Education-North America (PME-NA)*, 2009, Atlanta, USA.
- 02/09** What is your story? Geometry Learning Stories of Preservice Elementary School Teachers. **Aslan-Tutak, F.** Paper presented at *Annual Conference of Association of Mathematics Teacher Educators (AMTE)*, 2009, Orlando, USA.
- 02/09** Qualitative Research Methods in Mathematics Education. Adams, T. L., **Aslan-Tutak, F.**, Peterek, E. & LaFrumenta, J. Paper presented at *Annual Conference of Association of Mathematics Teacher Educators (AMTE)*, 2009, Orlando, USA.
- 11/06** Pre-service Teachers' Perceptions of the Achievement Gap: Implications for Mathematics Teacher Education. **Aslan-Tutak, F.**, Adams, T. Poster presented at *Closing the Achievement Gap Through Partnerships University of Florida College of Education Centennial Conference*, 2006, St. Petersburg, USA
- 11/06** Teachers of Mathematics on the Frontline. Adams, T., **Aslan-Tutak, F.**, LaFrumenta, J & Peterek, E. Paper presented at *Closing the Achievement Gap Through Partnerships University of Florida College of Education Centennial Conference*, 2006, St. Petersburg, USA.
- 01/06** Project EMERGE: Establishing a Mathematics Education Research Group Endeavor. **Aslan-Tutak, F.** & Adams, T. L. Poster presented at *Annual Conference of Association of Mathematics Teacher Educators (AMTE)*, 2006, Tampa, USA.

**National Presentations (Turkey)**

- 05/18** Kuram ve Uygulama Bütünlüğünde Matematik Eğitimi, Panelist at *Bahçeşehir Üniversitesi 21. Yüzyılda Matematik Eğitimi Konferansı*, 2018, İstanbul, Türkiye.
- 05/17** Bir Eylem Araştırması: Fonksiyon Öğretiminde Gerçekçi Matematik Eğitimi. Kaya, A.\*\* & **Aslan-Tutak, F.** Paper presented at *Üçüncü Türk Bilgisayar ve Matematik Eğitimi Sempozyumu (BİLMAT)*, 2017, Afyon, Türkiye.
- 05/17** Matematik Öğretmen Adaylarının FeTeMM'e İlişkin Günlük Hayat Örneğinde FeTeMM Alanlarına İlişkin Algıları. Tezsezen, S. \*\*, **Aslan-Tutak, F.** Paper presented at *Üçüncü Türk Bilgisayar ve Matematik Eğitimi Sempozyumu (BİLMAT)*, 2017, Afyon, Türkiye.
- 05/15** Kimya ve Ortaöğretim Matematik Öğretmen Adaylarının FeTeMM'deki Matematik Üzerine Algıları. **Aslan-Tutak, F.,** Akaygun, S. Paper presented at *İkinci Türk Bilgisayar ve Matematik Eğitimi Sempozyumu (BİLMAT)*, 2015, Adıyaman.
- 05/15** Matematik ve Kimya Öğretmen Adaylarının Fetemm Alanlarına İlişkin Tutumları ve Mühendislik, Tasarım, Teknoloji (MTT) Alanlarına İlişkin Algıları. Tezsezen, S. \*\*, **Aslan-Tutak, F.** Paper presented at *İkinci Türk Bilgisayar ve Matematik Eğitimi Sempozyumu (BİLMAT)*, 2015, Adıyaman.
- 05/15** İlköğretim Matematik Öğretmen Adaylarının Öğretme İçin Matematiksel Bilgilerinin Uluslararası TEDS-M Çalışması Kapsamında Değerlendirilmesi. Ertas, F. G. \*\*, **Aslan-Tutak, F.** Paper presented at *İkinci Türk Bilgisayar ve Matematik Eğitimi Sempozyumu (BİLMAT)*, 2015, Adıyaman.
- 05/15** 21. Yüzyıl Öğrenme Ortamlarını Oluşturan Öğretmenler. Akaygün,S., Akcan, S., **Aslan-Tutak, F.,** Mercan F. Paper presented at Türkiye Özel Okullar Birliği Derneği, 14. Geleneksel Eğitim Sempozyumu "Geleceğin Öğretmeni", 2015, Antalya.
- 09/14** Son Sınıf Matematik Öğretmenliği ve Matematik Bölümü Öğrencilerinin TEDS-M Testinden Aldıkları Puanlara Göre Öğretme İçin Matematiksel Bilgilerinin Karşılaştırılması. Ertaş, F. G. \*\*, **Aslan-Tutak, F.** Paper presented at *Onbirinci Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi (UFBMEK)*, 2014, Adana.
- 06/13** Matematik Öğretme Bilgisi Ölçekleri Çalıştayı. **Aslan-Tutak, F.** *Birinci Türk Bilgisayar ve Matematik Eğitimi Sempozyumu (BİLMAT)*, 2013, Trabzon.
- 06/13** Öğretmenlerin Matematik Öğretme Bilgisi Üzerine Uluslar Arası Bir Çalışma: FIRSTMATH. **Aslan-Tutak, F.,** Kılıç, H., Ertaş, F. G. \*\* Paper presented at *Birinci Türk Bilgisayar ve Matematik Eğitimi Sempozyumu (BİLMAT)*, 2013, Trabzon.



- 06/13 TEDS-M Öğretmenlerin Matematik Alan ve Matematik Öğretme Bilgisi Ölçeğinin Türkçeleştirilmesi ve Değerlendirilmesi. Ertaş, F. G. \*\*, **Aslan-Tutak, F.** Paper presented at *Birinci Türk Bilgisayar ve Matematik Eğitimi Sempozyumu (BİLMAT)*, 2013, Trabzon.
- 06/13 Tahmin Edilemeyen Alan İçerikli Ders Durumları Karşısında Matematiği Öğretme Bilgisi. Köklü, O. \*\*, **Aslan-Tutak, F.** Paper presented at *Birinci Türk Bilgisayar ve Matematik Eğitimi Sempozyumu (BİLMAT)*, 2013, Trabzon.
- 09/12 Matematik Tarihinin Logaritma Fonksiyonunun Anlatılmasında Kullanılması. **Aslan-Tutak, F.** Paper presented at *11th Matematik Sempozyumu of Matematikçiler Derneği (MAT-DER)*, 2012, Samsun, Turkey
- 09/12 Lise Öğretmen Adaylarının Karmaşık Sayılar Konusunda Uzmanlaşmış Alan Bilgisi. **Aslan-Tutak, F.** Paper presented at *11th Matematik Sempozyumu of Matematikçiler Derneği (MAT-DER)*, 2012, Samsun, Turkey
- 09/12 Origami Odaklı Geometri Öğretiminin Uzamsal Görselleştirme ve Geometri Başarısı Üzerine Etkisi. Arıcı, S.\*\*, **Aslan-Tutak, F.** Paper presented at *11th Matematik Sempozyumu of Matematikçiler Derneği (MAT-DER)*, 2012, Samsun, Turkey
- 09/12 Öğretmen Trigonometri Öz-yeterliliği ile Öğrenci Trigonometri Öz-yeterliliği ve Trigonometri Başarısı. Saraç, A.\*\*, **Aslan-Tutak, F.** Paper presented at *11th Matematik Sempozyumu of Matematikçiler Derneği (MAT-DER)*, 2012, Samsun, Turkey
- 07/11 Öğretmen Adaylarının Geometrik Kavram Yanılgıları: Simetri ve Eşlik. **Aslan-Tutak, F.** Paper presented at *1st Matematik Öğretimine Çağdaş Yaklaşımlar Sempozyumu*, 2011 Denizli, Turkey

\*\* Graduate Student

#### State Presentations (FL, USA)

- 09/07 Teachers of Mathematics: Impacting Knowledge, Supporting Growth. Adams, T. L. & **Aslan-Tutak, F.** Paper presented at *Annual conference of Florida Association of Teacher Educators (FATE)*, 2007, Orlando, USA.
- 10/06 Open-Ended Mathematics Problems to Enhance Student Learning. **Aslan-Tutak, F.** Paper presented at *Annual Conference of Florida Council of Teachers of Mathematics (FCTM)*, 2006, Orlando, USA.
- 10/06 Making Math Theorems Accessible to Students. Adams, T. L. & **Aslan-Tutak, F.** Paper presented at *Annual Conference of Florida Council of Teachers of Mathematics (FCTM)*, 2006, Orlando, USA.

09/06 A Study of Teachers (Re)Learning Mathematics. Adams, T. L., **Aslan-Tutak, F.**, Peterek, E. & LaFrumenta, J. Paper presented at *Annual conference of Florida Association of Teacher Educators (FATE)*, 2006, Orlando, USA.

#### THESIS SUPERVISED

04/18 **Ayşe Kaya:** *Teaching functions to 9th grade students using realistic mathematics education approach: An action research.* Thesis for Master of Science, Secondary School Science and Mathematics Education, Institute for Graduate Studies in Sciences and Engineering, Bogazici University.

05/18 **Zeynep Pehlivan:** *Investigation of Preservice Mathematics Teachers' Algebraic Thinking Through Translations Among Multiple Representations.* Thesis for Master of Science, Secondary School Science and Mathematics Education, Institute for Graduate Studies in Sciences and Engineering, Bogazici University.

06/18 **Büşra Türker:** *Determinants of High Achieving Students' Career Choices in STEM Fields.* Thesis for Master of Science, Secondary School Science and Mathematics Education, Institute for Graduate Studies in Sciences and Engineering, Bogazici University.

12/16 **Seçil Tezsezen:** *An Investigation of Preservice Teachers' STEM Awareness Through Definitions And Relationships of STEM Areas.* Thesis for Master of Science, Secondary School Science and Mathematics Education, Institute for Graduate Studies in Sciences and Engineering, Bogazici University.

08/14 **F. İclal Karataş:** *An Examination of In-Service Secondary Mathematics Teachers' Technological Pedagogical Content Knowledge and Their Technology Integration Self-Efficacy.* Thesis for Master of Science, Secondary School Science and Mathematics Education, Institute for Graduate Studies in Sciences and Engineering, Bogazici University.

08/14 **Şeyma Akkurt Ünal :** *Work Personality Types and Pre-Service Mathematics Teachers' Reasons for Choosing Mathematics Teaching.* Thesis for Master of Science, Secondary School Science and Mathematics Education, Institute for Graduate Studies in Sciences and Engineering, Bogazici University.

06/14 **F. Güneş Ertaş:** *A Way to Compare Mathematics Teacher Candidates' Mathematical Knowledge for Teaching: TEDS-M Released Tests.* Thesis for Master of Science, Secondary School Science and Mathematics Education, Institute for Graduate Studies in Sciences and Engineering, Bogazici University.

12/12 **Oğuz Köklü:** *Teachers' Content Knowledge in Teaching Slope of A Line.* Thesis for Master of Science, Secondary School Science and

Mathematics Education, Institute for Graduate Studies in Sciences and Engineering, Bogazici University.

**01/12** **Sevil Arıcı:** *The Effect of Origami-Based Instruction on Spatial Visualization, Geometry Achievement and Geometric Reasoning of Tenth Grade Students.* Thesis for Master of Science, Secondary School Science and Mathematics Education, Institute for Graduate Studies in Sciences and Engineering, Bogazici University.

**01/12** **Ayşe Saraç:** *The Relation of Teacher Efficacy to Students' Trigonometry Self-Efficacy and Trigonometry Achievement.* Thesis for Master of Science, Secondary School Science and Mathematics Education, Institute for Graduate Studies in Sciences and Engineering, Bogazici University.

## COURSES OFFERED

**Bogazici University, Istanbul, Turkey (2010 -present )**

- Sced 340: Science Technology and Society
- Sced 370: Assessment and Evaluation of Learning in Science and Mathematics
- Sced 404: Research Methods in Science and Mathematics Education
- Sced 420: Teaching Methods in Science and Mathematics
- Sced 450: School Experience in Science and Mathematics Education
- Sced 432: Practice Teaching in Mathematics
- Sced 48C: Special Topics: Selected Geometry Topics for Teaching\*
- Sced 48F: Special Topics: Teaching Secondary School Mathematics\*
- Sced 431: Teaching Methods in Mathematics
- Sced 416: Seminar on Practice Teaching in Mathematics
- SCED 571: Quantitative Methods in Experimental Research\*\*
- SCED 570: Research in Science Education\*\*
- SCED 58F: Special Topics: Research in Science and Mathematics Teacher Education\*\*

\* Courses developed

\*\* Graduate courses

**University of Florida, Florida, USA (2006-2009)**

- MAE 4310: Teaching Mathematics in the Inclusive Elementary Classroom
- CLAST-Math: Remediation Mathematics Course for College Level Academic Skills Test (CLAST)

## OTHER EXPERIENCES

**09/18-** Coleader of CERME 11 (Eleventh Congress of European Research in Mathematics Education) *TWG 20 Mathematics Teachers Knowledge, Beliefs and Identity.*

**03/18-06/18** Professional development team for STEM education, Akaygün, S., **Aslan-Tutak, F.**, Kartal, G. BILFEN Private High School Schools, Istanbul, Turkey.

- 2018** Member of the Committee of Developing Mathematics Activities for Turkish Science Centers, TÜBİTAK.
- 2016-2018** Coleader of CERME 10 (Tenth Congress of European Research in Mathematics Education) *TWG 20 Mathematics Teachers Knowledge, Beliefs and Identity*.
- 2017** Professional Development on Mathematical Modelling in High School, Uğur Okulları Istanbul, Turkey
- 2017** Professional Development on Assessment in Elementary School, Hisar Education Foundation Schools, Istanbul, Turkey
- 2016** Professional development for STEM education: Two-day Workshops with High school teachers and students, Akaygün, S., **Aslan-Tutak, F.**, Bogazici University, Istanbul, Turkey
- 2014-2016** Coleader of CERME 9 (Nineth Congress of European Research in Mathematics Education) *TWG 20 Mathematics Teachers Knowledge, Beliefs and Identity*.
- 2012-2015** Member of the Committee of Elementary (Grades 1-4) Mathematics Curriculum Development, TUBİTAK.
- 2015** Member of professional development team for STEM education: Two-day Workshops with High school teachers and students, Akaygün, S., **Aslan-Tutak, F.**, Bogazici University, Istanbul, Turkey
- 2014** Professional Development on Assessment in Class, Uğur Koleji Istanbul, Turkey
- 2014** Member of professional development team for STEM education, Akaygün, S., **Aslan-Tutak, F.**, & Mercan, F., FMV Nişantaşı Işık Foundation Schools, Istanbul, Turkey

#### **AWARDS/ SCHOLARSHIP**

- 2016, 2015, 2014** **Academic Incentive Award**, Bogazici University Foundation (BUVAK)
- 2013** **Academic Incentive Award**, Bogazici University Foundation (BUVAK)
- 2004-2009** **Yüksek Öğretim Kurulu (Higher Education Institute) Doctoral Scholarship**
- 2007** **Outstanding International Student Award**, University of Florida, FL, USA.
- 2006** **Elizabeth and William F. Leonard Scholarship** College of Education, University of Florida, FL, USA.

- 2004**                    **High Honor Degree for Graduation**  
Bogazici University, Istanbul, Turkey.
- 2001-2002**            **Hikmet Sebüktekin Scholarship (Faculty of Education Dean's  
Scholarship)**  
Bogazici University, Istanbul, Turkey.
- 1998-2000**            **Achievement Scholarship**  
Boğaziçi University, Istanbul, Turkey  
Entered Bogazici University Integrated BS&MS Program in  
Teaching Mathematics as the third ranking student and awarded  
with scholarship, Istanbul, Turkey.