



College of Science and Mathematics

Department of Mathematics  
and Statistics

## **YULIYA BABENKO**

Assistant Professor of Mathematics

Curriculum Vitae (last updated Sep. 1, 2013)

Department of Mathematics & Statistics, Kennesaw State University  
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### **EDUCATION**

- Ph. D., August 2006, Vanderbilt University, Mathematics
- M.A., May 2003, Vanderbilt University, Mathematics
- M.S., July 2000, Dnepropetrovsk National University (Ukraine), Mathematics
- B.S., September 2000, Dnepropetrovsk National University (Ukraine), Mathematics

Non-degree exchange student, Department of Computer Science, University of Georgia, USA, 1999 - 2000 (supported by ACTR/ACCELS scholarship)

### **PROFESSIONAL EXPERIENCE**

- June 2010 - present      Kennesaw State University  
Department of Mathematics and Statistics  
Assistant Professor
- August 2006 - May 2010      Sam Houston State University (Huntsville, TX)  
Department of Mathematics and Statistics  
Assistant Professor
- August 2001 - August 2006      Vanderbilt University (Nashville, TN)  
Graduate Teaching Assistant

## **MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS**

- American Mathematical Society
- Mathematical Association of America
- Association of Women in Mathematics
- Project NExT (Southeastern section)

## **HONORS, AWARDS, AND FELLOWSHIPS**

- 2013 KSU Foundation Prize for Publication and Creative Activity
- Award for Distinguished Teaching by a Beginning College or University Mathematics Faculty Member by the Southeastern Section of the Mathematical Association of America, 2013
- Faculty honoree for outstanding Mathematics senior Ryan Anderson
- KSU Foundation Prize for Publication runner-up, 2013, Kennesaw State University
- KSU Foundation Prize for Publication runner-up, 2012, Kennesaw State University
- Holder Award (for scholarship of teaching), 2011, Kennesaw State University
- KSU Foundation Prize for Publication runner-up, 2011, Kennesaw State University
- Vanderbilt University Graduate Honor Fellowship, 2001-2005

## **TEACHING, SUPERVISION, & MENTORING**

### **COURSES TAUGHT AT KENNESAW STATE UNIVERSITY (2010-2013)**

1. MTH 1190, Calculus I, 2 times
2. MTH 2202, Calculus II, 11 times
3. MTH 4490, Special Topics (Topology), 1 time
4. MTH 4391, Complex Analysis, 1 time
5. MTH 3310, Differential Equations, 2 times

### **COURSES TAUGHT AT SAN HOUSTON STATE UNIVERSITY (2006-2010)**

1. MTH 1420, Calculus I, 2 times
2. MTH 1430, Calculus II, 4 times
3. MTH 1316, Trigonometry, 2 times
4. MTH 1314, Pre Calculus Algebra, 2 times

5. MTH 1332, College Mathematics, 4 times
6. MTH 1324, Mathematics for Managerial Decision Making, 2 times
7. MTH 3394, Numerical Methods, 1 time
8. MTH 3396, Operations Research, 1 time
9. MTH 4361, Introductory Analysis, 1 time
10. MTH 4366, Elementary Analysis, 1 time
11. MTH 6379, Functions of a Complex Variable, 2 times

### **COURSES TAUGHT AT VANDERBILT UNIVERSITY (2003-2006)**

1. MATH 150a, Single-Variable Calculus I, 3 times
2. MATH 150b, Single-Variable Calculus II, 3 times
3. MATH 155a, Accelerated Single-Variable Calculus I, 1 time
4. MATH 155b, Accelerated Single-Variable Calculus II, 1 time

### **STUDENT SUPERVISION AT KSU**

#### **Undergraduate Capstone Project Supervision:**

1. Allison Cheek, Spring 2012
2. Stefanie Erdman, Spring 2012

#### **Research Supervision (Mentor-Protégé):**

1. Teagan Bryce, Fall 2011-Spring 2012
2. Shannon Bryce, Fall 2011-Spring 2012
3. Ryan Anderson, Summer 2012-Fall 2012

#### **Research Supervision/ Directed Studies (unofficial):**

1. Nicole Dowling “Fractal dimension or How long is the coast of Britain”(resulted in the presentation at Symposium of Students Scholars), Spring 2011
2. Jessica Fuller “Gaussian Quadrature Formulas” (resulted in the presentation at Symposium of Students Scholars), Spring 2011
3. Miranda Coleman “Mathematics of Sudoku”, Fall 2010
4. Ben Hauffman “Nowhere differentiable functions”, Spring 2011
5. Veronica Langley “Mathematics of Beads”, Spring 2011
6. David Whitney “Mathematical methods for edge detection”, Fall 2012
7. Nick Powers “Algorithm for adaptive linear spline interpolation” (resulted in a conference presentation) Spring-Summer-Fall 2012
8. Chasity Hughes, current

### **STUDENT ADVISING (other than student supervision) at KSU**

1. Currently I advise 4 undergraduate students.

## PROFESSIONAL DEVELOPMENT IN THE AREA OF TEACHING

1. Attended by-invitation-only conference Trends in Undergraduate Research in Mathematics (TURMS), Chicago, October 2013
2. Attended by-invitation-only conference “Legacy of R. L. Moore” with theme “Many faces of Inquiry-Based Learning”, Washington, DC, June 2011
3. NExT-SE (New Experiences in Teaching) Fellow 2010-current
4. Part of CETL sponsored book club “How learning works” (Fall 2010)
5. Participated in several CETL sponsored workshop (Fall 2010-Spring 2011)
6. Texas NExT (New Experiences in Teaching) Fellow 2006-2008

## SCHOLARSHIP OF TEACHING; RESEARCH AND CREATIVE ACTIVITY; PROFESSIONAL SERVICE; AND/OR ADMINISTRATION & LEADERSHIP

### PUBLICATIONS (Research)

#### Articles under review:

1. V. Babenko, **Yuliya Babenko**, O. Kovalenko, “*Kolmogorov's problem on the class of multiply monotone functions*”, under revision
2. V. Babenko, **Yuliya Babenko**, N. Parfinovych, D. Skorokhodov, “*Exact asymptotics of the optimal  $L_p$ -error of asymmetric linear spline approximation*”, under revision
3. R. Anderson, **Yuliya Babenko**, T. Leskevich, “*Simultaneous approximation of a multivariate function and its derivatives by multilinear splines*”, under revision

#### Published Refereed Journal Articles:

4. **Yuliya Babenko**, D. Skorokhodov, “*Stechkin's problem for differential operators and functionals of order one and two*”, Journal of Approximation Theory, 167 (2013) pp. 173-200.
5. **Yuliya Babenko**, T. Leskevich, “*On the  $L_p$ -error of approximation of bivariate functions by harmonic splines*”, accepted to for publication in Applicable Analysis.
6. **Yuliya Babenko**, S. Borodachov, “*Inequalities for the norms of finite difference operators of multiply monotone sequences*”, Mathematical Inequalities and Applications, V. 15, N. 2 (2012), pp. 247–269.
7. **Yuliya Babenko**, D. Skorokhodov, “*The Kolmogorov and Stechkin problems for functions with second derivatives from Orlicz spaces*”, Mathematical Notes, (2012) Vol. 91, No. 2, pp. 161-171
8. **Yuliya Babenko**, T. Leskevich, J.-M. Mirebeau, “*Sharp asymptotics of the  $L_p$  approximation error for interpolation on block partitions*”, Numerische Mathematik, Volume 117, Issue 3 (2011), pp. 397-423.
9. **Yuliya Babenko**, V. Babenko, N. Parfinovych, D. Skorokhodov, “*On one extremal property of a regular simplex*”, Communications in Analysis and Geometry, (2010) V. 17, N. 4, pp. 1-15.

10. **Yuliya Babenko**, “Exact asymptotics of the uniform error of interpolation by multilinear spline”, *Journal of Approximation Theory* 162 (2010), pp. 1007-1024.
11. **Yuliya Babenko**, V. Babenko, D. Skorokhodov, “Exact asymptotics of the optimal  $L_{p,\Omega}$ -error of linear spline interpolation”, *East Journal on Approximations*, V. 14, N. 3 (2008), pp. 285--317.
12. **Yuliya Babenko**, “Asymptotics of the weighted uniform error of linear spline interpolation of  $C^2$  functions and applications”, *Approximation Theory XII: San Antonio 2007*, pp. 14-26.
13. V. Babenko, **Yuliya Babenko**, “On the Kolmogorov problem for the upper bounds of four consecutive derivatives of a multiply monotone function”, *Constr. Approx.* 26 (2007), no. 1, pp. 83-92
14. V. Babenko, **Yuliya Babenko**, A. Ligun, A. Shumeiko, “On asymptotical behavior of the optimal linear spline interpolation error of  $C^2$  functions”, *East Journal on Approx.*, 12, N. 1 (2006), pp. 71--101.
15. **Yuliya Babenko**, A. Kroo, “Markov-type inequalities for homogeneous polynomials on non symmetric star-like domains”, *Frontiers in Interpolation and Approximation*, Taylor & Francis Group, USA, Editors N.K. Govil et.al, 2006, pp. 1-15.
16. V. Babenko, **Yuliya Babenko**, “Kolmogorov inequalities for multiply monotone functions defined on a half-line”, *East Journal on Approximations*, 11 (2005), no. 2, pp. 169-186.
17. V. Babenko, **Yuliya Babenko**, “The Olovyanishnikov inequality for multivariate functions”, *Approximation Theory: A Volume Dedicated to Borislav Boyanov*, Academic Publishing House, Sofia, 2004, pp. 20-31.
18. V. Babenko, **Yuliya Babenko**, “The Kolmogorov inequality for absolutely monotone functions on a half-line”, *Advances in constructive approximation: Vanderbilt 2003*, Mod. Methods Math., Nashboro Press, Brentwood, TN, 2004, pp. 63-74.
19. V. Babenko, **Yuliya Babenko**, “About Kolmogorov type inequalities for functions defined on a half line”, *Constructive theory of functions*, DARBA, Sofia, 2003, pp. 205-208.
20. **Yuliya Babenko**, “Pointwise inequalities of Landau-Kolmogorov type for functions defined on a finite interval”, *Ukrainian Mathematical Journal*, V.52, N.2, 2001, pp. 270--275.
21. **Yuliya Babenko**, “Exact inequalities of Landau type for functions with second derivatives from Orlich spaces”, *Bulletin of Dnepropetrovsk National University*, 2001.

**Other published works** (e.g., instructional support materials, book reviews, technical reports, encyclopedia entries, trade books. Provide all pertinent details as appropriate to the type of published work):

**Non-research article:**

- “Challenges in Promoting Undergraduate Research in the Mathematical Sciences”, Feryal Alayont, **Yuliya Babenko**, Craig Jackson and Zsuzsanna Szaniszló, submitted to *Involve*.

**Book review:**

- “Crafting by concepts: fiber arts and mathematics”, edited by sarah-marie belcastro and Carolyn Yackel, *Journal of Mathematics and the Arts*, Volume 6, Issue 1, 2012 pp. 53-54.

## PRESENTATIONS

### Refereed Conference Presentations:

1. “How to effectively and efficiently teach course you have never *taken* before?” (With Ellen Moomaw), presented by Y. Babenko, 18<sup>th</sup> Annual Georgia Conference on College and University Teaching, October 2010

### Non-Refereed Conference Presentations:

1. “*Optimal and asymptotically optimal recovery of solutions of elliptic PDE’s*”, presented by Y. Babenko, 14th International Conference on Approximation Theory, San Antonio, TX, USA, April 7-10, 2013
2. “*Kolmogorov problem on the class of multiply monotone functions*”, presented by Y. Babenko, Georgia Analysis Symposium, Athens, GA, USA, February 28-March 1, 2013
3. “*Approximation on a class and adaptive approximation by harmonic splines*”, presented by Y. Babenko, 8<sup>th</sup> International Conference on Mathematical Methods for Curves and Surfaces, Oslo, Norway, June 28-July 3, 2012
4. “*Asymptotics of the error of asymmetric approximation by polylinear splines*”, presented by Y. Babenko, 7<sup>th</sup> International Congress on Industrial and Applied Mathematics, Vancouver, BC, Canada, July 18-22, 2011
5. “*Interpolation and approximation by polyharmonic splines*”, presented by Y. Babenko, International Symposium in Approximation Theory in conjunction with the 26th Annual Shanks Lecture, Vanderbilt University, Nashville, TN, USA, May 17-21, 2011
6. “*Sharp asymptotics of the error of adaptive approximation and interpolation by some classes of splines*”, presented by Y. Babenko, Multivariate Approximation and Interpolation, ICMS workshop (by invitation only), Edinburgh, Scotland, September 5-10, 2010
7. “*On one extremal property of a regular simplex and its applications to adaptive mesh generation*”, presented by Y. Babenko, Optimal Configurations on the Sphere and Other Manifolds in conjunction with the 25h annual Shanks Lecture, Vanderbilt University, Nashville, TN, May 17-20, 2010
8. “*On the  $L_p$ -error of adaptive interpolation by splines of degree  $n - 1$  in each variable*”, presented by Y. Babenko, 13<sup>th</sup> International Conference on Approximation Theory, San Antonio, TX, March 7-10, 2010
9. “*Adaptive spline interpolation in various settings, analysis of the error, and applications*”, presented by Y. Babenko, International Conference on Computational and Information Sciences, Houston, TX, April 29 - May 2, 2009
10. “*On one extremal property of a regular simplex*”, presented by Y. Babenko, 2<sup>nd</sup> International Workshop on Algebraic Geometry and Approximation Theory, Towson University, MD, April 9-11, 2009
11. “*Exact asymptotics of the best asymmetric approximation of  $C^2$ -functions by linear splines in  $L_p$ -metric*”, presented by Y. Babenko, 3<sup>rd</sup> Workshop on Approximation Theory and Applications, SHSU, October 24-25, 2008
12. “*Asymptotics of the error of best uniform  $(\alpha, \beta)$ -approximation of  $C^2$  functions by linear splines*”, presented by Y. Babenko, International Conference on Multivariate Approximation, Haus Bommerholz, Germany, September 21– 26, 2008

13. “*Kolmogorov problem for four numbers for multiply monotone functions of lower smoothness*”, presented by Y. Babenko, Conference on Approximation Theory Dedicated to the 70<sup>th</sup> Birthday of Jozsef Szabados, Alfred Renyi Institute of Mathematics, Budapest, Hungary, July 6-12, 2008
14. “*Asymptotics of the error of adaptive spline interpolation*” (invited plenary lecture), presented by Y. Babenko, 9<sup>th</sup> International Meeting on Approximation Theory, Ubeda, Spain, June 28–July 2, 2008
15. “*Error analysis for adaptive approximation by various classes of splines and mesh generation*”, presented by Y. Babenko, 10<sup>th</sup> SIAM Conference on Geometric Design and Computing, San Antonio, TX, USA, November 4–8, 2007
16. “*On asymptotically optimal error of interpolation by linear and multilinear splines*”, presented by Y. Babenko, 6<sup>th</sup> International Congress on Industrial and Applied Mathematics, Zurich, Switzerland, July 16–20, 2007
17. “*Estimates of norms of subsequent derivatives of  $r$ -monotone functions*”, presented by Y. Babenko, Extremal Problems in Complex and Real Analysis, Moscow, Russia, May 22–26, 2007
18. “*Markov-type inequalities for homogeneous polynomials on non-symmetric star-like domains*”, presented by Y. Babenko, Meeting of the Texas Section of the MAA, Edinburg, TX, April 12–14, 2007
19. “*Asymptotically optimal choice of knots for interpolation and applications to numerical integration*”, presented by Y. Babenko, 12<sup>th</sup> International Conference on Approximation Theory, San Antonio, TX, March 4–8, 2007
20. “*On asymptotical behavior of optimal error of interpolation of  $C^2$  functions by linear and bilinear splines*”, presented by Y. Babenko, SIAM Conference on Geometric Design and Computing, Phoenix, AZ, October 31 – November 3, 2005
21. Function Spaces, Approximation Theory, Nonlinear Analysis, presented by Y. Babenko, Moscow, Russia, May 23-29, 2005
22. “*Asymptotically optimal triangulations for linear spline interpolants of piecewise  $C^2$  surfaces*”, presented by Y. Babenko, International Conference on the Interactions between Wavelets and Splines, University of Georgia, Athens, Georgia, May 16–19, 2005
23. “*On existence of a function with prescribed norms of its derivatives*”, presented by Y. Babenko, Functional Analysis and Approximation Theory, Maratea, Italy, June 16-23, 2004
24. “*Inequalities of Kolmogorov type for special classes of functions*”, presented by Y. Babenko, Advances in Constructive Approximation, Vanderbilt, Nashville, TN, USA, May 2003
25. “*Olovyanishnikov inequality for multivariate functions*”, presented by Y. Babenko, 3<sup>rd</sup> International Conference, Multivariate Approximation Theory and Applications Cancun, Mexico, April 2003
26. “*About Kolmogorov type inequalities for functions defined on a half line*”, presented by Y. Babenko, Constructive Theory of Functions, Varna, Bulgaria, June 2002
27. “*Inequalities of Kolmogorov type for  $r$ -monotone functions of many variables*”, presented by Y. Babenko, International Conference on Functional Analysis and its Applications, Lviv, Ukraine, May 2002
28. “*Exact inequalities of Landau type for functions with second derivatives from Orlich spaces*”, presented by Y. Babenko, Interregional Conference on Computer Modeling, Dniprodzerzhinsk, Ukraine, May 1999
29. “*Pointwise inequalities of Landau-Kolmogorov type for functions defined on a finite interval*”, presented by Y. Babenko, International Conference on Approximation Theory and its Applications dedicated to the Memory of V. K. Dzyadyk, Kyiv, Ukraine, 1999

## Seminar/Colloquium Presentations:

- Numerical Analysis and Scientific Computing, Emory University, January 2013.
- AAM Seminar, KSU, January 2013.
- Numerical Analysis Seminar, UGA, March 2012.
- Applied Mathematics Seminar, University of Utah, November 2011.
- AAM Seminar, KSU, September 2011.
- Analysis Seminar, Georgia Tech, April 2011.
- Computational Mathematics Seminar, Clemson University, April 2011.
- AAM Seminar, KSU, March 2011.
- Colloquium, Georgia Southern University, December 2010.
- Colloquium, Towson University, October 2010.
- AAM Seminar, KSU, September 2010.
- Colloquium, University of Houston (Downtown), December 2009.
- Colloquium, Clayton State University, November 2009.
- Math Talks series, Kennesaw State University, October 2009.
- Analysis Seminar, Georgia Institute of Technology, Atlanta, October 2009.
- Applied and Computational Mathematics Seminar, Georgia Institute of Technology, September 2009.
- Colloquium, Department of Mathematics, Towson University, Baltimore, MD; May 2009
- Colloquium, Department of Mathematical Sciences, UT-Dallas, February 2009.
- Seminar, Institute of Geometric Modeling and Industrial Geometry, Vienna University of Technology, Vienna, Austria; November 2008.
- Renyi Institute of Mathematics, Hungarian Academy of Sciences, Budapest, Hungary; November 2008
- Seminar, School of Mathematics, Tel-Aviv University, Israel, December 2007.
- Colloquium, University of Houston - Downtown, Houston TX; December 2007. Colloquium, Seminar, Institute of Biomathematics and Biometry, Munich, Germany, July 2007.
- Colloquium, University of Hohenheim, Stuttgart, Germany, July 2007.
- Applied Mathematics joint with Approximation Theory seminar, University of Utah, September 2006.
- Seminar, Renyi Institute, Budapest, Hungary, May 2006.
- PhD Thesis defense, Vanderbilt University, April 2006.
- Seminar, Industrial Mathematics Institute, University of South Carolina, April 2006.
- Colloquium, University of Alabama, Huntsville, February 2006.
- Computational Analysis Seminar, Vanderbilt University, February 2006.
- Colloquium, Sam Houston State University, January 2006.
- Computational Analysis Seminar, Vanderbilt University, September 2005.
- Seminar, University of Mannheim, Germany, July 2005.
- Colloquium, Hohenheim University, Stuttgart, Germany, July 2005.
- Seminar, INRIA Sophia Antipolis, France, July 2005.
- Seminar, INRIA Sophia Antipolis, France, July 2005.
- Computational Analysis Seminar, Vanderbilt University, November 2004.
- Qualifying paper defense, Vanderbilt University, May 2003.



## **GRANTS AND CONTRACTS**

### **Funded Projects as PI:**

- MAA RUMC Grant to organize Kennesaw Mountain Undergraduate Mathematics Conference, \$2,700, July 2013
- MAA RUMC Grant to organize Kennesaw Mountain Undergraduate Mathematics Conference, \$2,990, July 2012
- MAA RUMC Grant to organize Kennesaw Mountain Undergraduate Mathematics Conference, \$1,250, July 2011
- Collaboration Grant, Simons Foundation, \$35,000. 2011-2016.
- Kennesaw Women in Mathematics project (co-PI's Anda Gadidov and Mari Castle), MAA Tensor Foundation, \$4,000, March 2012
- Kennesaw Women in Mathematics project (co-PI's Anda Gadidov and Mari Castle), MAA Tensor Foundation, \$5,000, March 2011
- Mentor-Protégé, KSU, April 2012, \$2,650.
- Mentor-Protégé, KSU, April 2012, \$2,000.
- Mentor-Protégé, KSU, February 2011, \$1,400.
- QEP Faculty Development grant, KSU, November 2011, \$1,000.
- QEP Faculty Development grant, KSU, November 2010, \$3,500.
- SIAM Travel Grant to attend International Congress on Applied and Industrial Mathematics in Vancouver, Canada, July 2011, \$1,500.
- Enhancement Grant for Research, SHSU, 2008, \$18,000
- SIAM Travel Grant to attend International Congress on Applied and Industrial Mathematics in Zurich, Switzerland, July 2007, \$1,500.
- Vanderbilt University Graduate Honor Fellowship, Vanderbilt University, 2001-2005.

### **Proposals Submitted but not Funded as PI:**

- Analysis of optimal and asymptotically optimal recovery of functions, functionals, and operators, (co-PI with S. Borodachov), National Science Foundation, requested \$182,025.

## PROFESSIONAL SERVICE

### At KENNESAW STATE UNIVERSITY (6/2010-8/2013)

*Indicate role on the KSU committee (e.g., chair, member) and brief description of individual contribution and impact of the work.*

#### **University:**

- Global Learning Specialist

#### **College:**

- Member of the group “CSM Student Success Task Force”

#### **Department or Program:**

1. Organized weekly research seminar “Analysis and Applied Mathematics” at KSU, Fall 2010-now. In particular, I set up surveys in the beginning of each semester to find best time for majority of interested faculty, invited and corresponded with speakers, secured funding for travel reimbursements and food, created flyers to advertise each talk (see Binder 2, pages...), purchased food for every talk, for two years maintained a seminar webpage. Webpages
  - Fall 2010: <http://math.kennesaw.edu/~ybabenko/AAMseminar>
  - Spring 2011: [http://math.kennesaw.edu/~ybabenko/AAMseminar\\_S11](http://math.kennesaw.edu/~ybabenko/AAMseminar_S11)
  - Fall 2011: [http://math.kennesaw.edu/~ybabenko/AAMseminar\\_F11](http://math.kennesaw.edu/~ybabenko/AAMseminar_F11)
  - Spring 2012: [http://math.kennesaw.edu/~ybabenko/AAMseminar\\_S12](http://math.kennesaw.edu/~ybabenko/AAMseminar_S12)
  - Fall 2012-Spring 2013: <http://math.kennesaw.edu/happening/events/aam.html>
2. Organized Inquiry-Based Learning discussion group, Fall 2011
3. Organized Pedagogical Conversations seminar, Spring 2012
4. Secured funds and organized Kennesaw Mountain Undergraduate Mathematics Conference, 2011, 2012. Webpages:
  - <http://math.kennesaw.edu/conferences/KMUMC2011/>
  - <http://math.kennesaw.edu/conferences/KMUMC2012/>
5. Secured funds and organized Infinite Horizons Lecture Series (identified speakers, organized their trips, advertised the event, sent out formal invitations for honorary dinners with speakers, ordered food and materials for workshops, etc.)
6. Secured funds, organized and mentored Kennesaw Women in Mathematics
7. Served on Hiring Committee, Fall 2010-Spring 2012 (Reviewed over 600 applications, scheduled and conducted 20 interviews at the Joint Meetings in New Orleans, conducted 11 phone interviews, and 3 on-campus visits.)
8. Served on several small committees (Master Program Developing committee, Foundations Course planning committee)
9. Member of the group working on Annual Report 2011.
10. Organized students’ trips and took students to conferences (Nebraska Conference for Undergraduate Women in Mathematics in Lincoln, NE, and Undergraduate Mathematics Conference in Knoxville, TN)
11. Created and monitored two Facebook pages: for Department of Mathematics and Statistics and for Kennesaw Women in Mathematics
12. Gave seven Math Talks

### **THE PROFESSION (WHILE AT KSU, 6/2010-8/2013)**

- Organized minisymposium “Adaptive mesh generation for interpolation and approximation” as part of ICIAM 2011, July 2011.
- Organized minisymposium “Extremal Problems of Approximation Theory” as part of International Symposium in Approximation Theory in conjunction with the 26th Annual Shanks Lecture, Vanderbilt University, May 2011
- Organized conference “Approximation Theory and Harmonic Analysis”, Kennesaw State University, May 2011 (webpage: <http://math.kennesaw.edu/~ybabenko/workshop>)

### **At SAM HOUSTON STATE UNIVERSITY (2006-5/2010)**

#### **University:**

- University Faculty Women’s Advisory Committee, August 2009 - June 2010
- University Minority Committee, 2007-2008

#### **Department or Program:**

- Undergraduate Advisor, January 2009 - June 2010
- Hiring Committee, 2006-2007
- Masters Program Committee, Fall 2007
- MTH 141 (Pre Calculus) Committee, Spring 2009.
- Organized Weekly Research and Educational Seminar in Analysis and Geometry, SHSU, Spring 2007.
- Organized Weekly Research Seminar in Applied and Constructive Mathematics, SHSU, Fall 2006.
- Organized Educational Lecture Series “Seven Gems of Approximation Theory”, SHSU, Fall 2006.

### **THE PROFESSION (WHILE AT SHSU, 2006-5/2010)**

- Organizing Committee for “International Conference on Approximation Theory and Applications dedicated to the 90th Anniversary of N. P. Korneichuk”, Dnepropetrovsk, Ukraine, June 2010.
- Organized Third Workshop on Approximation Theory and Applications, SHSU, October 2008.

- Organized Minisymposium “Error analysis for adaptive mesh generation” within Tenth SIAM Conference on Geometric Design and Computing
- Organized Second Workshop on Constructive Function Theory, SHSU, October 2007.
- Organized Minisymposium “Spline interpolation and quadrature formulae” within Twelfth International Conference on Approximation Theory, San Antonio, Texas, March 4–8, 2007.
- Organized Workshop “Contemporary questions in Constructive Function Theory”, SHSU, 2007.

**Service to Journals (while at SHSU and KSU, 5/2006-8/2013):**

- American Mathematical Monthly, referee
- Constructive Approximation, referee
- Journal of Approximation Theory, referee
- East Journal on Approximation, referee
- Applied Numerical Mathematics, referee
- Applications and Applied Mathematics, referee
- Journal of Computational and Applied Mathematics, referee
- Numerical Functional Analysis and Optimization, referee

**Other Manuscript or Proposal Reviewing Activities (Provide all pertinent details as appropriate related to the reviewing work):**

- Zentralblatt MATH (the world's most complete and longest running abstracting and reviewing database in pure and applied mathematics), reviewer

**THE COMMUNITY**

**Professionally-Related Service to the Community:**

1. conducted workshop for teachers at Osborne High School (Spring 2012)
2. co-organized Queens of Math Day for high school female students (2012 and 2013)