

CURRICULUM VITA

Laura Smithies

Campus Address:

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EDUCATION:

- 1997 Ph.D. University of Utah
Dissertation: Equivariant Analytic Localization of Group Representations.
Areas: functional analysis, Lie groups.
Advisor: Joseph L. Taylor
- 1991 M.S. Western Washington University
Thesis: Basisity of Eigenvectors of Krein Space Operators.
Areas: functional analysis, operator theory.
Advisor: Branko Ćurgus
- 1989 B.A. Eastern Washington University (summa cum laude)
Majors : Mathematics and Computer Science Math
Minors : Russian and Physics

ACADEMIC POSITIONS:

- Aug 2003 - Associate Professor of Mathematics, Kent State U.
Aug 1997 - May 2003 Assistant Professor of Mathematics, Kent State U.
Sep 1995 - May 1997 University Supported Research Fellow, U. of Utah
Sep 1991 - May 1995 Teaching Fellow, U. of Utah
Sep 1989 - May 1991 Teaching Assistant, Western Washington U.
Sep 1987 - May 1989 Instructor of basic math, Eastern Washington U.

Professional Affiliations: Association for Women in Mathematics, American Mathematical Society, American Association of University Professors.

Research Interests:

I am interested in the study of (linear) operators and operator-valued functions. My current research project is a study of Gershgorin-type sets with Richard S. Varga. This project involves using operator theory to develop new numerical methods in linear algebra. Prior to this, I worked with Alfred Cavaretta and Natacha Fontes, on a project which combined the tools of operator theory and approximation theory. Before that, I worked with Jan Kover and Per Enflo on projects involving applications of operator theory to perturbation theory. Current and Recent publications are available to download in PDF format on my personal webpage at <http://www.math.kent.edu/smithies>.

Research Publications:

1. *A note on polar decomposition based Gershgorin Sets* Accepted by J. of LAA, 2008.
2. With Natacha Fontes, Janice Kover, Richard S. Varga, *Singular value decomposition normally estimated Gershgorin Sets*. ETNA. **26** 2007, 320-329.
3. With Richard S. Varga, *Singular Value Decomposition Gershgorin Sets*. J. of LAA. **417** no. 2-3, 2005, 370-380.
4. With Alfred S. Cavaretta, *Lipschitz-type bounds for the map $A \rightarrow |A|$ on $\mathcal{L}(\mathcal{H})$* . J. of LAA, **360** 2003,231-234.
5. With Per Enflo and Jan Kover, *Denseness for Norm Attaining Operator Valued Functions*. J. of LAA. **338** 2001.
6. *Finite rank operator valued functions*. J. of LAA. **336** 2001, 15-20.
7. With Per Enflo, *Harnack's theorem for harmonic compact operator-valued functions*. J. of LAA. **336** 2001, 21-27.
8. With Joseph L. Taylor, *An analytic Riemann-Hilbert correspondence for semi-simple Lie groups*. AMS J. of Rep. Theory **4** (2000), 398-445.
9. *Equivariant analytic localization of group representations*. Memoirs of the AMS. **153** No. 728. Sept. 2001.

Ph.D. Advisees:

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| Jan Kover | Graduated August 2001. (Directed with Per Enflo.) Dissertation: <i>Perturbations of Norm Attaining Operators</i> . |
| Natacha Fontes | Graduated August 2004 (Directed with Alfred S. Cavaretta.) Dissertation: <i>Multi-dimensional polynomial inequalities; norms of interpolation operators</i> . |

Teaching and Mentoring:

Over the years, I've taught many classes including graduate level courses in real, complex and functional analysis and Honors undergraduate courses. I am a faculty associate for the First Year Experience program aimed at KSU freshmen.

Service:

I am the Outreach Coordinator for the KSU math department. I represent the math department at programs aimed at freshmen and high school students. I also set up volunteer tutoring programs at local schools and organize our department's annual High School Math Scholarship Contest.

For the last four years, I have been a coach or assistant coach in basketball and soccer for the All Star Training Club - an athletic organization for mentally or physically challenged people. I am also a trainer for Special Olympics athletes in soccer and track. Last year, I created a Bunny Outreach program in for special education students at local High Schools.