

AREK GOETZ

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EDUCATION

1996 PhD in Mathematics (expected May 1996)

- **Thesis:** *Dynamics of Piecewise Isometries*, University of Illinois at Chicago.
- **Advisor:** Steven Hurder

1992 MS in Mathematics from the University of Illinois at Chicago.

1991 Summer Student at the National Science and Research Geometry Center, mathematics undergraduate at the University of Illinois at Chicago.

1989-90 Student of Physics and Mathematics at Wroclaw University (Poland).

HONORS and DISTINCTIONS

- **Talks at Conferences** (complete list on the second page)
 - *Geometry and Dynamics* (Warsaw, June 1995)
 - *Dynamics and Foliations* (Warsaw, May 1995)
 - *North East Dynamics Conference* (Stony Brook, April 1994)
 - *AMS Special Sessions* : (Stillwater, October 1994); (Orlando, March 1995); (Orlando, January 1996); (Baton Rouge, April 1996)
- **Seminars and Colloquia**
 - Northwestern University (November 1995)
 - University of Southern California (January 1995)
 - University of Texas at Austin (October 1994)
- **Awards and Scholarships**

1994-95 University of Illinois Fellowship.
1991-94 United States Department of Education Graduate Fellowship.

TEACHING EXPERIENCE: INNOVATIVE FORMS AND USE OF TECHNOLOGY

- **Instructor**, Multivariable Calculus, (anticipated Spring 1996)
- **Teaching Assistant Consultant & Training** (August 1995)
 - Conducted a series of discussions addressing issues on quality teaching.
- **Teaching Assistant**, Emerging Scholars Program (Fall 1995)
 - Supervised and coordinated cooperative learning of multivariable calculus students.
 - Introduced students to utilizing computer software for graphing and visualizing three-dimensional objects.
- **Teaching Assistant** (Spring 1995).
 - Calculus II (discussion leader).
 - Participated in the Mathematics Tutoring Lab
- **Teaching Assistant** (Fall 1994)
 - Honors Calculus (discussion leader).
 - Utilized Maple on NeXTStep workstations.
- **Computer Assistant** (Spring 1994)
 - Assisted professors in teaching courses which utilized computer software.

FURTHER ACHIEVEMENTS

- The top 250 score (nationwide) in the Putnam Examination (the highest score in the history of the UIC Math Department).
- Summer undergraduate research position at the National Science and Research Geometry Center in Minneapolis, Minnesota.
- Participated in the National Science Foundation Geometry Institute (Park City, Utah).
- **fourth** prize in the National Mathematics Olympiad in all of Poland,
- **14th** place in Poland in the National Physics Olympiad,
- **18th** place in Poland in the National Olympiad in Astronomy.

COMPUTER SCIENCE EXPERIENCE

- Extensive experience with computing and visualization software in teaching mathematical courses.
- Assistant to the system administrator of the unix NeXT lab (Spring 1994).
- Co-authored the software “Geometric Construction” (First International Computer Science Olympiad in former Yugoslavia).
- “Mathematica”, “Maple”, C, Pascal, Latex, WWW.

BACKGROUND:

- President of the Mathematics Graduate Student Association (1993/1994).
- Languages: Polish, French, Italian, Russian.
- Permanent Resident of the United States. (Citizenship expected in 1996)

PUBLICATIONS and REPORTS

- *Figure Eight Attractor*, submitted to **Ergodic Theory and Dynamical Systems**.
- *Dynamics of Piecewise Isometries*, submitted to the **Transactions of AMS**.
- *The Midpoint Polygon Transformation*, **National Science Foundation Center for Visualization of Geometric Structure, Reports 91** - Undergraduate Research Experiences, Summer 91, p.73.
- *Constrained Isometric Walks*, in preparation.