

## CURRICULUM VITAE

Hasina Akter

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### Education

Summer 2006 - Present: University of North Texas, Texas, USA. Ph.D. track in Mathematics. Ph.D. qualifying exams passed in August 2008 (Real Analysis) and January 2010 (Complex Analysis).

Advisor: Mariusz Urbański.

Dissertation: Real Analyticity of Hausdorff Dimension of Julia sets of Parabolic Polynomials.

Oct 2001 – Nov 2005 : Georg-August-Universität Göttingen, Germany. M.Sc. in Mathematics.

Advisor: Hartje Kriete.

Dissertation: Newton's Method of Complex Exponential Function.

July 1996 – June 1997: University of Dhaka, Bangladesh. M.Sc. in Mathematics.

Advisor: Md. Ainul Islam.

Dissertation: Duality of Linear Fractional Programming.

July 1993 – June 1996: University of Dhaka, Bangladesh. B.Sc. in Mathematics.

Jan 1991 – Dec 1992 : H.S.C. (Higher Secondary Certificate) in Science Group, Dhaka Board, Dhaka, Bangladesh.

Jan 1980 – Dec 1990: S.S.C. (Secondary School Certificate) in Science Group, Dhaka Board, Dhaka, Bangladesh.

## Work

- Jan 2006 – Present : University of North Texas, Texas, USA.  
Job title: Teaching Fellow.  
Responsibility: Itemized below. Unless indicated as grading or T.A., I was the instructor of record.
- July 2002 – Nov 2005 : Georg-August-Universität Göttingen, Germany.  
Job title: Student Coordinator.  
Responsibility: Welcoming new students to the International Mathematics Program and help them in registration.
- Sep 2000 – Oct 2001: Sabuj Sathi Pre-Cadet School, Bangladesh.  
Job title: Teacher.  
Responsibility: Teaching Mathematics.

## Presentations

- **February 2006:** Presentation of my Dissertation on “Newton’s Method of Complex Exponential Function”, University of North Texas (UNT), Texas, USA.
- **January 2005:** 20 minutes talk on “Newton’s Method of Complex Exponential Function” at the International conference on Applied Mathematics and Mathematical Physics (ICAMMP), Shah Jalal University, Sylhet, Bangladesh.
- **July 2001 :** 45 minutes talk on “Duality of Linear Fractional Programming” as a guest student of Master-plus-Programme (Mathematics program for international students) at the seminar of Complex Dynamics, Georg-August-Universität Göttingen, Germany.
- **UNT Dynamics and Analysis Seminar**
  - **Fall 2009:** Gibbs States and Equilibrium States – 2 sessions. Proof and examples. (from G. Keller – Ergodic Theory.)
  - **Spring 2009:** Random Recursive Constructions – 1 session. (from paper: Random Recursive Constructions: Asymptotic Geometric and Topological Properties by R. D. Mauldin and S. C. Williams.)
  - **Fall 2008:** Probability and Measure – 2 sessions on ‘Law of large numbers and central limit theorem’. Proof and examples. (from John W. Lamperti, P. Billingsley.)

## Conferences attended

- Holomorphic Dynamics, Warwick University, August 22-26, 2005.
- Chaotic Properties of Dynamical Systems, Warwick University, August 20–24, 2007.
- Rocky Mountain Dynamical Systems, Bingham Young University, Salt Lake, May 12-16, 2008.

## Publication

- (with M. Urbański) “Real Analyticity of Hausdorff Dimension of Julia Sets of Parabolic Polynomials  $f_\lambda(z)=z(1-z-\lambda z^2)$ ”, Preprint 2009, to appear in the Illinois J. Math.
- Newton’s Method of Complex Exponential Function , M.Sc. Dissertation, Georg-August-Universität Göttingen, Germany, 2005.
- Duality of Linear Fractional Programming, M.Sc. Dissertation, University of Dhaka, Bangladesh, 2000.

## Classes Taught at UNT

Spring 2007	MATH 1010 and MATH 1010: Fundamentals of Algebra.
Fall 2007	MATH 1010 and MATH1100: Fundamentals of Algebra and College Algebra.
Spring 2008	MATH 1100 and MATH 1100: College Algebra.
Fall 2008	MATH 1400 and MATH 1400: College Math.
Fall 2009	MATH 1190 and MATH 1190: Business Calculus.
Spring 2010	MATH 1190 and MATH 1190: Business Calculus.
Summer 2010	MATH 1351: Mathematics for Elementary School Teachers.
Fall 2010	MATH 1190 and MATH 1190: Business Calculus.
Spring 2011	MATH 1581: Survey of Mathematics with Algebra Review (Laboratory using ALEKS). MATH 1681: Elementary Probability and Statistics (Laboratory using ALEKS).

### **Worked as T.A.**

MATH 1681: Elementary Probability and Statistics.

MATH 1010: Fundamentals of Algebra.

### **Worked as Grader**

MATH 2500: Real Analysis I.

MATH 2700: Linear Algebra and Vector Geometry.

MATH 3410: Differential Equation I.

MATH 3420: Differential Equations II.

MATH 4450: Matrix Theory.

MATH 5500: Introduction to the Theory of Matrices.

### **Worked as Tutor in MathLab**

MATH 1710: Calculus I.

MATH 1720: Calculus II.

MATH 2730: Multivariable Calculus.

### **References**

Available upon request.