Xuan Hien Nguyen
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Employment

Associate Professor, Iowa State University, 08/2018 – present.
Assistant Professor, Iowa State University, 08/2011 – 05/2018.
Postdoctoral Position, Kansas State University, 08/2008 – 07/2011.
Visiting Assistant Professor, University of Cincinnati, 09/2006 – 06/2008.

Education

Ph.D. in Mathematics, August 2006, University of Wisconsin, Madison
    Dissertation title: Construction of complete embedded self-similar surfaces under mean curvature flow. Part 1. Adviser: Prof. Sigurd Angenent
M.A. in Mathematics, May 2002, University of Wisconsin, Madison
B. Sc. in Mathematics, June 2000, Free University of Brussels

Grants Received

National Science Foundation - Conference Grant ($19,900), June 2019 - May 2020.
Simons Foundation Collaboration grant ($42,000), Sept. 2018 - Aug. 2023.
Association of Women in Mathematics travel grant ($1,011), awarded March 2016.
National Science Foundation DMS-0710701 ($42,000), July 2007 – June 2011, PI.

Other Grant

Senior personnel on NSF Award HRD1036791. *Exploring the STEM Gender Gap: Introductory College Mathematics and Statistics Instruction and its Association with Self-Efficacy,* PI Ulrike Genschel, ($528,923), Jan. 2011–Dec. 2015 (Nguyen: $15,000 for summer support and travel).

Awards and Honors

- Alpha Lambda Delta & Phi Eta Sigma first-year honor societies recognition for excellence in teaching (Fall 2011-Math 165)

- Vilas Travel Grant Award, Spring 2006 ($600 for domestic travel to a conference).

- Elizabeth S. Hirschfelder Scholarship Award, Spring 2002 (the award is given to outstanding female graduate students in mathematics, physics, and chemistry).

- Belgian American Educational Foundation Fellowship, Academic year 2000-2001 (the award covers tuition and living expenses for one year of study in the US).

- Medal of the Free University of Brussels, September 2000 (awarded to students with a weighted average of at least 16 out of 20 in every undergraduate year).

Scholarship

Book Chapter

- *Peer-Grading on Exams* in "Beyond Lecture: Techniques to Improve Student Proof-Writing Across the Curriculum", 7 pages, MAA notes series, edited by Jennifer Franko Vasquez, Rachel Schwell, and Aliza Steurer, 2016.

Journal Articles in Preparation

12. *Desingularization of immersed surfaces for mean curvature-type equations* (with S. Kleene).

Refereed Journal Articles

11. *A survey of closed self-shrinkers with symmetry* (with G. Drugan and H. Lee). *Results in Mathematics* 73 (2018), no. 1, Art. 32, 32 pp.

10. *Finding shrinking doughnuts via variational methods* (with G. Drugan). J. Geom. Anal. 28 (2018), no. 4, 3725-3746.

9. *Iterated Routh's triangles* (with E. Carroll, A.P. Ghosh, A. Roitershtein). J. Geom. Graph. 21 (2017), no. 2, 153-168.

8. *Finite topology self-translating surfaces for the mean curvature flow in $\mathbb{R}^3$* (with J. Dávila and M. del Pino). Advances in Mathematics 320 (2017), 674-729.

7. *Mean curvature flow of entire graphs evolving away from the heat flow* (with G. Drugan). Proc. Amer. Math. Soc. 145 (2017), no. 2, 861?869.

6. *Doubly periodic self-translating surfaces under mean curvature flow.* Geom. Dedicata, 174 (2015), pp. 177-185.

5. *Construction of complete embedded self-similar surfaces under mean curvature flow III.* Duke Math. J., pp. 163 (2014), number 11, pp. 2023-2056.

4. *Complete embedded self-translating surfaces under mean curvature flow.* J. of Geom. Anal., 23 (2013), Issue 3, pp. 1379-1426.

3. *Construction of complete embedded self-similar surfaces under mean curvature flow II*, Advances in Differential Equations, volume 15 (2010), numbers 5-6, pp. 503-530.

2. *Translating tridents*, Communications in PDE, volume 34 (2009), number 3, pp. 257-280.

1. *Construction of complete embedded self-similar surfaces under mean curvature flow I*, Trans. Amer. Math. Soc. 361 (2009), pp. 1683-1701.

Teaching

Course Design
- *Math 240X: Mathematics of Investment and Credit.* Design: Fall 2015 (create the course, choose the textbook and organize the syllabus). The course was taught by Dr. A. Jenkins in Spring 2016.
- *Math 101: Orientation for Math Majors. Fall 2013.* I took over the course and designed it to encourage students to interact with each other participate in the life of the department. The course gives students a taste of higher mathematics and informs them of possible careers.
- *Math 165: Calculus 1. Fall 2013.* The section I taught is the first one to incorporate Team-Based Learning.
- *Math 165: Calculus 1. Spring 2012.* (with H. Bolles, A. Jenkins, and E. Johnston) We wrote a complete set of clicker questions for Math 165. The set consists of multiple choice questions with a range of difficulties to engage students, especially in large lectures. It is available through the CEUME.

Projects in Mathematics Education:

Sonia Kovalevsky Day. March 30, 2019. Co-organizer and plenary spearker.

Actuarial Sciences. Fall 2015 – present

    I co-advise the Actuarial Science Club/Gamma Gamma chapter of Gamma Iota Sigma.

    I secured funding to support students interested in actuarial sciences with donors Mrs. Bierbaum and Mrs. Diedrichsen.

    I represented the department in the curriculum development for the new Actuarial Science Major.

    I created the course Math 240X, Mathematics of Investment and Credit.

Math Club for Future Teachers. Spring 2013 – Fall 2018
    (with H. Bolles).

Exploring the STEM Gender Gap. Fall 2011 – Fall 2017
    (with A. Carriquiry, U. Genschel, A. Gansemer-Topf, E. Johnston, W. Kliemann, and K. Koehler).