

Yan DAI

Curriculum Vitae

PERSONAL DATA

CITIZENSHIP: U.S.A
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EDUCATION

CURRENT Ph.D MATHEMATICS, **The University of Arizona**, Tucson
Advisor: Prof. Tom KENNEDY
Doctoral Minor: Statistics

MAY 2016 M.S. MATHEMATICS, **The University of Arizona**, Tucson
Thesis: "The Exit Distribution for Some Random Walks"
Advisor: Prof. Tom KENNEDY

MAY 2013 B.S. MATHETICS and SECONDARY EDUCATION
The University of Guam, Barrigada

FALL 2012 MASS program at **Pennsylvania State University**, University Park

WORK EXPERIENCE

August 2013 - present | Graduate Instructor at THE UNIVERSITY OF ARIZONA, Tucson

DECEMBER 2010 - MAY 2012 | Research Assistant at UNIVERSITY OF GUAM, Barrigada

MAY 2010 - MAY 2012 | SAT Math Instructor and Curriculum Developer at IVY EDUCATIONAL SERVICE, Guam

RESEARCH

Research Interests Probability theory and statistical physics
In particular, the field of random walk models and their scaling limits, most specifically the self-avoiding walk, weakly self-avoiding walk, true self-avoiding walk, smart kinetic walk, and mirror model.

Publications *The Exit Distribution for Smart Kinetic Walk with Symmetric and Asymmetric Transition Probability*
J. Stat. Phys. **166** (2017), 1455-1463. (arXiv:1611.09779)

PRESENTATIONS AND TALKS

April 25, 2018 Graduate Student Colloquium, University of Arizona, Department of Mathematics
Critical Bond Percolation and Mirror Model

- March 30, 2018 Frontier Probability Day 2018, Oregon State University, Corvallis, OR
The Mirror Model on the Square Lattice
- March 21, 2018 Mathematical Physics and Probability Seminar, University of Arizona, Department of Mathematics
The Mirror Model on the Square and Triangular Lattice
- March 12, 2018 AMS Graduate Chapter Recruitment Research Blitz, University of Arizona, Department of Mathematics
The Mirror Model on the Square Lattice
- January 12, 2018 Association for Women in Mathematics Workshop Poster Presentations, San Diego
The Exit Distribution for the Smart Kinetic Walk with Non-uniform Transition Probability
- April 6, 2016 Mathematical Physics and Probability Seminar, University of Arizona, Department of Mathematics
The Exit Distribution for the Smart Kinetic Walk with Non-uniform Transition Probability
- December 11, 2014 Research Tutorial Group Mini-Conference, University of Arizona, Department of Mathematics
Smart Kinetic Walk in Simply Connected Domains

CONFERENCES

- July 8-20, 2018 48th Probability Summer School, Saint-Flour, France
- June 18 -22, 2018 Random Conformal Geometry and Related Fields, Seoul, Korea
- May 21 -24, 2018 TRIPODS Southwest Summer Conference, Tucson, Arizona
- March 29-31, 2018 Frontier Probability Days 2018, Corvallis, Oregon
- March 5-9, 2018 Arizona School of Analysis and Mathematical Physics, Tucson, Arizona
- January 10-13, 2018 Joint Mathematics Meeting, San Diego
- October 27-30, 2011 SACNAS National Conference, San Jose

TEACHING EXPERIENCE

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| FALL 2018 | <p><i>Instructor</i> for Online Math 129 - Calculus II
Responsible for online lecturing, designing and organizing online class activities and discussions, writing online quizzes and exams, grading online homework.</p> |
| SPRING 2018 | <p><i>Instructor</i> for Math 129 - Calculus II
Responsible for lecturing, designing and organizing class activities and discussions, writing and grading weekly quizzes, grading homework and exams.</p> |
| SUMMER 2017 | <p><i>Teaching Assistant</i> for Integration Workshop 2017
Responsible for assisting a group of incoming graduate students on problem solving, team project, and preparing them for coming graduate school.</p> |
| FALL 2015 | <p><i>Instructor</i> for Math 120R - Calculus Preparation</p> |

	Responsible for lecturing, designing and organizing class activities and discussions, writing and grading weekly quizzes, grading homework and exams.
SUMMER 2015	<i>Instructor</i> for Math 116 - Calculus Concepts for Business Responsible for lecturing, designing and organizing class activities and discussions, writing and grading weekly quizzes, grading homework and exams.
SPRING 2016	<i>Instructor</i> for Math 122A - Functions for Calculus
SPRING 2015	Responsible for lecturing, designing and organizing class activities and discussions, writing and grading weekly quizzes, grading homework and exams.
SPRING 2015	<i>Course Mentor</i> for Math 485 - Math Modeling Responsible for holding weakly meeting with a team of senior or junior undergrads from the class, serving as a facilitators for the team project.
FALL 2014	<i>Instructor</i> for Math 112 - College Algebra Responsible for lecturing, designing and organizing class activities and discussions, writing and grading weekly quizzes, grading homework and exams.
SPRING 2016	<i>Instructor</i> for Math 111 - Plane Trigonometry
SPRING 2014, FALL 2013	Responsible for lecturing, designing and organizing class activities and discussions, writing and grading weekly quizzes, grading homework and exams.

SERVICE ACTIVITIES

<i>AWM Mentor</i>	University of Arizona, Department of Mathematics, Fall 2018. Mentoring first and second year graduate students along math graduate program, and provide advice on how to succeed in the programs.
<i>Graduate Recruitment Workshop</i>	University of Arizona, Department of Mathematics, Spring 2017 & 2018. Served as a panelist to share information and answer prospective students' questions about graduate program.
<i>Math Graduate Representative</i>	AMS-MAA Grad School Fair at Joint Math Meeting, San Diego, January 12, 2018 Meeting with undergraduate students and potential PhD students to answer questions and share graduate school life with student.
<i>Integration Workshop Mentor</i>	University of Arizona, Department of Mathematics, August 2017. Responsible for assisting a group of incoming graduate students on problem solving, team project, and preparing them for coming graduate school
<i>Math Circle Volunteer</i>	University of Arizona, Department of Mathematics, Fall 2014. Create and lead problem sessions on topics in mathematics for middle-school and high-school students.
<i>Graduate TA Workshop</i>	University of Arizona, Department of Mathematics, Fall 2014 Served as a panelist to address new graduate teaching assistants' questions during the workshop discussion on training workshop.
<i>SK Day Workshop Leader</i>	University of Arizona, Department of Mathematics, Spring 2014. Day event to encourage female high-school students and their teachers to continue in further study of mathematics. Wrote and led workshop on mathematical puzzles: Magic Square.

HONORS AND REWARDS

JAN 2018 Joint Mathematics Meetings Graduate Student Travel Grant, AWM
FALL 2016 - FALL 2017 National Science Foundation Graduate Research Fellowship
FALL 2012 MASS Program Merit Fellowship and Outstanding Project in Algebra
OCT. 2010 & 2011 The Tan Siu Lin & Sons Scholarship

COMPUTER SKILLS

Basic Knowledge: Python, MatLab, \LaTeX
Intermediate Knowledge: R, C, C++

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Mathematical Society (AMS)
Mathematical Association of America (MAA)
Association for Women in Mathematics (AWM)