

Master Program

- ◆ Sometimes a bridge to PhD program.
- ◆ **Residency Requirements:** Minimum, full time enrollment (12 units) for **3 quarters** (average time to degree is 2 years).
- ◆ **Course Requirements:** **9 courses** in Algebra, Real, and Complex Analysis + **3 electives**. Minimum grade of B.
- ◆ **Exam Requirements:** **2 MS passes** in Algebra, Analysis, or Complex Analysis before start of 2nd year.



A PhD candidate must perform independent, creative research in Mathematics culminating in a dissertation that makes a new and valuable contribution in the candidate's area of expertise.



- ◆ Coursework requirements.
- ◆ Two written qualifying exams in Algebra, Real or Complex Analysis.
- ◆ Advancement to Candidacy: Oral Presentation and Examination.
- ◆ Teaching Experience.
- ◆ Doctoral Dissertation: Defense and Submission.



Milestones

- ◆ *By start of year 2*: Achieve 2 MS level passes in qualifying examinations.
- ◆ *By end of year 2*: Complete graduate year-long sequences in Algebra, Real and Complex Analysis, and declare an area of specialization.
- ◆ *By start of year 3*: Achieve 2 PhD level passes in qualifying examinations and choose PhD advisor.
- ◆ *By start of year 4*: Advance to PhD Candidacy.
- ◆ *By end of year 7*: PhD defense.



Professional Development and Networking

- ◆ **TA training:** 10 weekly workshops in the Fall of first and second year.
- ◆ **Future Faculty Program:** Preparation to give talks and interviews.
- ◆ **Diverse Outreach Opportunities:** Math CEO, Math Circles, Mathcounts.
- ◆ **Invited Talks and Panels:** Alumni/ae visits and talks, research/teaching/industry career panels.
- ◆ **Professional Organizations:** AWM, AMS, and SIAM Chapters.



Best Advice



Never Give Up!



Jumpstart Summer Program*

- ◆ Unofficial compact versions of **Introductory Graduate Algebra and Analysis**.
- ◆ 5 weeks intensive online courses.
- ◆ Attendance strongly encouraged (but not mandatory).
- ◆ Intensive on campus problem solving week and placement examinations .



Benefits for Students

- ◆ Increased preparation in Algebra and Analysis.
- ◆ Better placement in basic graduate sequences.
- ◆ Shorter average time to degree.
- ◆ Early bonding with peers and faculty.
- ◆ Opportunity for self-assessment.
- ◆ Smoother transition into graduate life.



Students' Feedback

- ◆ *“Jumpstart allowed me to not only get back in the swing of learning mathematics after a long and involved move, but also allowed me to become acquainted with my cohorts, future instructors, and the specific material to be covered in future coursework.”*
- ◆ *“Jumpstart courses provide a good review of advanced undergraduate material and help students transition into graduate level courses.”*
- ◆ *“I think Jumpstart is an excellent beginning that not only prepares students for Fall course but allows them to meet and become comfortable with other students and professors.”*



Summer Undergraduate Research Fellowship*

UCI Graduate
Division

www.grad.uci.edu

THINKING ABOUT A PHD



Apply for a summer research fellowship
at the University of California, Irvine

\$4,000 Research Stipend & Free
Summer Housing

2018 Program Dates: June 24-August 17

Summer Undergraduate Research Fellowship (SURF)



The UC Irvine Summer Undergraduate Research Fellowship program offers upper division undergraduate, and continuing master's students with outstanding academic potential the opportunity to work closely with faculty mentors on research projects. The program is designed for students who plan to pursue a Ph.D., especially at UC Irvine. Research opportunities are available for BUILD students in all academic fields.

The 8 week SURF experience includes:

- Faculty mentored research
- Intensive graduate preparation workshop series
- Research presentation experience
- Dedicated graduate student peer mentorship
- Outstanding southern California location

APPLICATION AVAILABLE: December 2017

DEADLINE TO APPLY: February 7, 2018



CONTACT: Daniel Fabrega | dfabrega@uci.edu | 949.824.8730



Let's Take a Break



Application Material

- ◆ Official Undergraduate **Transcripts** (sent by Registrar's office):
Minimum GPA 3.0.
- ◆ **3 letters** of recommendation.
- ◆ **Statement of purpose**.
- ◆ UCI graduate **application** (deadline: **December 15, 2020**).
- ◆ **General** and **Subject GRE scores** (must be at most 5 years old). **Optional in Fall 2020 application cycle**.
- ◆ **TOEFL** (international students whose primary language is not English; sub-speaking score of 26 or better required to TA - otherwise must pass a UCI administered English assessment).
- ◆ **Fee** \$120 US citizen/permanent residents, \$140 for others.
Can be waived for domestic students with strong financial need.



Advice to Applicants

- ◆ Prepare your application **early** and make sure it is **complete**.
- ◆ **Be proactive**. Check the math department website and the graduate division website. Contact faculty members in the area of research of your interest.
- ◆ Take the **GRE** exams **early** and prepare well (especially for GRE Subject). **Optional in Fall 2020 application cycle**.
- ◆ **Take honors level courses** in abstract algebra and real analysis.
- ◆ Consider obtaining a **MS before** applying.
- ◆ Develop **independent work habits**. Challenge yourself with hard problems.



Ideal Applicant

- ◆ Strong mathematical background, especially in algebra and analysis.
- ◆ Strong work ethics (did you shy away from hard courses?)
- ◆ Great passion for mathematics.
- ◆ Inquisitiveness and curiosity.
- ◆ Strong motivation and resilience.
- ◆ Total commitment for a 5 years period.
- ◆ Intellectual Independence.



Successful Student

- ◆ Proactive and independent.
- ◆ Well organized
- ◆ Mindful of deadlines.
- ◆ In touch with faculty.
- ◆ Open to advice.
- ◆ Able to cope with frustration.
- ◆ Driven.



- ◆ **MS students are self supported.** The annual fee is about \$18k for CA residents and \$33k for non-residents. Domestic out-of-state students must become CA residents during the first year.
- ◆ TAs are occasionally available to MS students.



- ◆ Admitted students are **guaranteed 5 years of support** through research and teaching assistantships, graderships, and fellowships, **provided they remain in good standing**.
- ◆ If satisfactory progress is being made, the Department **extends support to year 6**.
- ◆ **No support** is provided during **year 7**.
- ◆ Campus **housing is affordable** and TAships pay a **sufficient salary** for students not to worry about money.



Teaching Assistantships

- ◆ During academic year, graduate student **employment is capped at 50%**. This is equivalent to 20 hours per week.
- ◆ A 50% appointment consists of **2 discussion sections** and time spent in the **tutoring center**.
- ◆ Discussions meet **twice a week for one hour**.
- ◆ Effective **workload**: About **10 hrs/week** per discussion (2 hrs discussion, 1 office hr, 5 hrs grading/preparation, 2-4 hrs in the tutoring center).
- ◆ Union regulations mandate that a 50% TA can work for **no more than 220 hrs/quarter**.



Teaching Assistantships – Continued

- ◆ Minimum 3.1 GPA is a condition for TA eligibility.
- ◆ TA must exhibit satisfactory progress towards degree objectives. Moreover, they must be registered as full-time graduate students, with 12 units or more per quarter.
- ◆ Mandatory attendance of TA training by the Department (Fall quarter).
- ◆ International students must pass TOEFL iBT (Test of Spoken English) administered by E.T.S. or the UCI campus SPEAK or TOEP exams to become eligible.



Fellowships and Summer Support

- ◆ Internal and Extramural Fellowships.
[Graduate Division Website](#)
- ◆ Non-resident tuition (\$15k) covered during first year. Students are expected to obtain CA-residency by begin of year 2.
- ◆ Instructor/TA/Grader positions available during summer.



Former Students

- ◆ Our graduate alumni have found successful careers in both industry and academia.
- ◆ For more information about employment of former students, click [here](#).



Some Former Students*

William Yessen



- ◆ Attended a **community college for 3 years** (on and off, working at various jobs in between).
- ◆ **Transferred to CSUN** (California State University Northridge) as computer science major.
- ◆ **BA in math from CSUN.**
- ◆ Graduated from UCI's **PhD program in Mathematics** with a thesis in Mathematical Physics in Spring 2013.
- ◆ **Staff Engineer** at **Xperi Corporation**



Cynthia Northrup



- ◆ **BA in Mathematics** from California State University Northridge.
- ◆ Graduated from UCI's **PhD program in Mathematics** with a thesis on Mathematical Foundations and Set Theory in 2015.
- ◆ Current Employment: **Director of Digital Content** for McGraw-Hill Education.



Some Former Students

Jeremy Pecharich



- ◆ BA and MS in Mathematics from the University of Utah.
- ◆ Graduated from UCI's PhD program in Mathematics with a thesis on Algebraic Geometry in 2011.
- ◆ Current Employment: Software Systems Engineer at NASA's JPL–Jet Propulsion Laboratory, Pasadena.



Some Former Students

Katie Rainey



- ◆ BA and MS in Mathematics from UC Berkeley.
- ◆ Graduated from UCI's PhD program in Mathematics with a thesis on Image Processing in 2010.
- ◆ Current Employment: Research Scientist at US Navy's Naval Information Warfare Center Pacific, San Diego.



Some Former Students

Jeremy Ovadia



- ◆ [BS in Mathematics](#) from UCI.
- ◆ Graduated from UCI's [PhD program in Mathematics](#) with a thesis on Computational Math Biology in 2013.
- ◆ Current Employment: [Senior Associate](#) at [Wilshire Advisors Solutions](#), Santa Monica.



Jacquelyn Rische



- ◆ BA in Mathematics from Whittier College.
- ◆ Graduated from UCI's PhD program in Mathematics with a thesis on Mathematical Modeling of Learning in 2014.
- ◆ Current Employment: Visiting Assistant Professor at Hobart and William Smith College, Geneva, NY.



Some Former Students

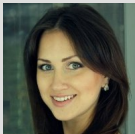
Dongyong Wang



- ◆ **BS in Mathematics** from Tsinghua University, Beijing.
- ◆ Graduated from UCI's **PhD program in Mathematics** with a thesis in Numerical Analysis in 2013.
- ◆ Current Employment: **Software Engineer** at **Google**, Sunnyvale.



Natalia Kiseleva-Karasik

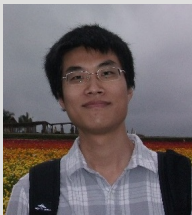


- ◆ **BS in Mathematics** from Petrozavodsk State University, Russian Federation.
- ◆ Graduated from UCI's **PhD program in Mathematics** with a thesis in Probability in 2013.
- ◆ Current Employment: **Product Development and Business Analysis** at **Medata**, Orange County.



Some Former Students

Fei He



- ◆ BS in *Applied Mathematics* from UCLA.
- ◆ Graduated from UCI's *PhD program in Mathematics* with a thesis in Geometric Analysis in 2014.
- ◆ Current Employment: *Assistant Professor* at *Xiamen University*, China.



Some Former Students

Casey Kelleher



- ◆ Blended BS+MS program Cal Poly SLO.
- ◆ Graduated from UCI's PhD program in Mathematics with a thesis in Geometric Analysis in 2017.
- ◆ Current Employment: NSF Postdoc at Princeton.



Some Former Students

Adam Larios

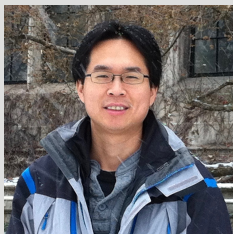


- ◆ **BS and MS in Mathematics** from Western Washington University.
- ◆ Graduated from UCI's **PhD program in Mathematics** with a thesis in Fluid Dynamics in 2011.
- ◆ Current Employment: **Assistant Professor** at **University of Nebraska**, Lincoln.



Some Former Students

Wei-Kuo Chen



- ◆ **BS in Mathematics** from National Central University.
- ◆ Graduated from UCI's **PhD program in Mathematics** with a thesis in Probability in 2012.
- ◆ Current Employment: **Assistant Professor** at **University of Minnesota**, Twin Cities.



Advice from Current Students

- ◆ *Set aside time to study for your math GRE subject test. It is harder than you expect.*
- ◆ *Take some honors level classes in real analysis and abstract algebra, perhaps some introductory graduate level classes. Taking the standard undergraduate algebra and analysis courses does not prepare you well enough for the graduate exams.*
- ◆ *When you are admitted to UCI (or another institution), go visit. Talk to potential research advisors, but also to students to get some insights.*
- ◆ *The first two years are the most stressful. Find something that helps you go through (so you do not focus constantly on the exams): a research problem to look forward to, an extracurricular activity, some outreach.*



Advice from Current Students

- ◆ *Networking is extremely important. Be proactive and create your own support structure. There are several ways to meet friends: attend the Jumpstart program, participate in a learning seminar, play sports.*
- ◆ *Talk to older students. Find out how often a professor meets with the research group, and how supportive each advisor is. Sports and learning seminars are great ways to meet older students.*
- ◆ *You are expected to be an independent learner, to the point that you can pretty much check out a book from the library and learn it on your own. Start practicing.*
- ◆ *The Jumpstart program is fabulous. By the time it ends, new graduate students have already clustered in groups of friends. If you skip the Jumpstart, it may be harder to adjust .*



Housing

- ◆ Campus housing is very affordable (with a room-mate) and very conveniently located near campus.
- ◆ Guaranteed through normative time to degree, minus one year if applying prior to the deadline of May 1st. Students who miss the deadline are placed on a priority waitlist. For PhD students, normative time is 6 years, so there is guaranteed housing for five years!



Outreach Activities

- ◆ **Mathcounts:** The Department hosts regional (and sometime state) events of this national competition for middle schoolers.
- ◆ **Math CEO*:** Weekly sessions of mathematical exploration for middle school and high school students from underserved communities.
- ◆ **Math ExpLR:** A competitive summer research program in mathematics and biology for high school students in Orange County.
- ◆ **Math Circle:** A tuition-free annual enrichment program open to all middle and high school students in Orange County.



The End

For more information visit

www.math.uci.edu

or contact us

enciso@uci.edu

