# Junqing(Jenn) Qian | CV

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## Position

**Visiting Assistnat Professor of Pure Mathematics** **2020 -**

*Department of Mathematics and Statistics*

*University of New Mexico, Albuquerque, NM, U.S.*

## Education

**Ph.D. in Mathematics** **2014 - 2020**

*Advisor: Damin Wu* *Department of Mathematics*

*University of Connecticut, Storrs, CT, U.S.*

**B.S. in Mathematics** **2010 - 2014**

*School of Gifted Young*

*University of Science and Technology of China, Hefei, Anhui, China*

## Research Interests

Differential geometry, analytic functions, automorphic functions, complex manifolds, invariant metrics, Riemann surfaces, arithmetic differential geometry, and number theory.

## Publications

2. The Kobayashi-Royden metric on punctured spheres (*with G. Cho*). arXiv:1907.07295
   volume 32, issue 4, pages 911–918. *Forum Mathematicum.*
1. Hyperbolic metric, punctured Riemann sphere and modular functions. arXiv:1901.06761
   DOI: https://doi.org/10.1090/tran/8175 *Trans. Amer. Math. Soc.*

## Awards and Fellowships

**DeLuca Graduate Teaching Award**
*University of Connecticut, Department of Mathematics* *spring 2020*

**Doctoral Dissertation Fellowship**
*University of Connecticut* *spring 2020*

**Doctoral Travel Fellowship**
*University of Connecticut* *fall 2019*

**Commendation Letter of Excellence in Teaching**
*Office of the Provost, University of Connecticut* *each semester, 2016 - 2019*

**William H. Ezell Scholarship**
*University of Connecticut* *summer 2018*

**Graduate Summer Fellowship**
*University of Connecticut* *summer 2015*

**Scholarship for Freshman**
*University of Science and Technology of China* *fall 2010*

## Conferences and Talks

- *Algebra & Geometry Seminar* *10/2020*
  Talk: "a gentle overview of Kähler-Einstein metric, Part II"
  University of New Mexico
- *Algebra & Geometry Seminar* *10/2020*
  Talk: "a gentle overview of Kähler-Einstein metric, Part I"
  University of New Mexico
- *Algebra & Geometry Seminar* *9/2020*
  Talk: "From the hypergeometric differential equation to conformal maps of curvilinear polygons"
  University of New Mexico
- *Colloquium* *9/2020*
  Talk: "Modular functions and Asymptotic geometry on Punctured Riemann Sphere"
  University of New Mexico
- *Current Developments in Mathematics 2019* *11/2019*
  Harvard University *attended with financial support*
- *Conference on Differential Geometry* *11/2019*
  a conference in celebration of the 40 years JDG Editorship and the 70th Birthday of S. T. Yau
  Lehigh University *attended*
- *S.I.G.M.A seminar (expository)* *10/2019*
  Talk: "conformal mapping, Schwarzian derivative and accessory parameters"'
  University of Connecticut
- *PDE and Differential Geometry Seminar* *10/2019*
  Talk: "Hyperbolic metric on punctured Riemann surfaces"
  University of Connecticut
- *Northeast Analysis Meeting* *10/2019*
  Contributed talk: "hyperbolic metric, punctured sphere and modular functions"
  Syracuse University
- *Northeast Analysis Network* *attended, 9/2019*
  University of Connecticut
- *Current Developments in Mathematics 2018* *11/2018*
  Harvard University *attended with financial support*
- *Summer School in Minimal Surfaces, Flows, and Relativity* *7/2018*
  University of Connecticut *attended*
- *S.I.G.M.A seminar (expository)* *4/2018*
  Talk: "Poincaré hyperbolic models, punctured Riemann sphere and modular functions"
  University of Connecticut

## Academic Services

- *Reviewer for Mathematical Review* *2/2021 -*
- *Co-making and co-grading Topology & Geometry qualifying exam at UNM* *1/2021*

## Teaching Experiences

**Current: at University of New Mexico**: *albuquerque, NM*
MATH 401/501: Advanced Calculus I *undergrad./grad. spring 2020*

MATH 319: Theory of Numbers *spring 2020*

**Past: at University of New Mexico**:

MATH 1512: Calculus I *fall 2020*

MATH 327: Discrete Structures *fall 2020*

**Past: at University of Connecticut**:

Elementary Differential Equations (PI) *2 sections, supervised 4 honor students, fall 2019*

Elementary Differential Equations (PI) *2 sections, spring 2019*

Multi-Variable Calculus (PI) *summer 2017*

Calculus II (online TA) *spring 2020*

Multi-Variable Calculus (TA) *3 sections, spring/fall 2017, spring/fall 2018*

Multi-Variable Calculus (TA) *online, summer 2018*

Calculus II (TA) *3 sections, fall 2016*

Calculus I (TA) *3 sections, fall 2015, spring 2016*

Calculus I (TA) *1 section, spring 2015*

## In-Class Presentations and Seminars Attended

· in-class presentation: "A sketch of symmetric spaces" *spring 2019*
  course title: frourier analysis on groups

· seminar: "Trace Formula and Weyl's Law" *learning seminar, fall 2018*

· multiple presentations *working seminar, uconn, spring 2018/fall 2017*
  topic: hyperbolic metric on $n$th punctrued Riemann sphere$(n = 3, 4, 6)$

· Doctoral oral exam: "Modular Function and Gauss Curvature" *fall 2016*

· "$\Gamma(2)$ and Modular Function" *geometry reading section, spring 2015*

· in-class presentation: "An introduction to Zariski Topology" *spring 2015*
  course title: intro. to geometry and topology 2

· in-class presentation: "Primary Decomposition in Noetherian Ring" *fall 2014*
  course title: commutative algebra