

Research, Informatics and Graduate Studies

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PhD / Master (MSc) Positions in Geometric Function Theory -Group of Assoc. Prof. Antti Rasila (GS-2019001)

Mathematics program (group of Prof. Antti Rasila) is looking for 1-2 PhD/Master students to conduct research in geometric function theory and applications. We aim at understanding conformal invariants and related classes of functions such as quasiconformal and harmonic mappings.

Contract duration for PhD: 3 + 1 years.

Project Details

The project aims at understanding conformal invariants and related classes of functions such as quasiconformal and harmonic mappings. It is mainly about pure mathematics, but for a student interested in simulation and programming, there is also an opportunity to work with numerical computation of conformal invariants and mappings as well as certain applications of these theories.

The research topics of our current interest are sketched below:

- Quasiconformal and harmonic mappings
- Conformally invariant metrics like the hyperbolic metric and its generalizations
- Other conformal invariants such as conformal modulus, capacity and harmonic measure
- Computational methods algorithms for computation of the above quantities and their use of such approaches numerical conformal and quasiconformal mappings, solution of certain PDEs, and applications

Keywords

- Complex Analysis
- Conformal Geometry
- Hyperbolic Metrics
- Quasiconformal Mappings
- Harmonic Mappings
- Numerical Conformal Mappings

Selection Criteria

- Master/ Bachelor's degree (or equivalent) in Mathematics, Applied Mathematics or Computational Science (essential)
- Good knowledge in complex analysis (preferable)
- Good communication skills, good command of English (essential)

Position

PhD/Master

Program

Mathematics with Computer Sciences

Research Area

Geometric Function Theory (Complex Analysis)

Contacts

Antti Rasila

Email: antti.rasila@gtiit.edu.cn

[Web Page Link](#)

[ResearchGate Page](#)

Application Deadline

Open till filled

Location

Guangdong Technion - Israel Institute of Technology (GTIIT), China & Technion-Israel Institute of Technology, Haifa

Date Posted

January 8 2019

Fees & Finance

how to apply

- Ability to work independently as well as in a team environment (essential)
- Ability to author scientific reports and co-author scientific publications (essential)
- The PhD/Master candidate must fulfill the requirements for admission to the Technion Graduate School and needs to comply with its regulations leading to the PhD/Master degree: <https://graduate.technion.ac.il/en/prospective-students/>