

Curriculum Vitae

Full Name Christina Karafyllia
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Education

Jan 2017 - Jan 2020 - Ph.D. in Mathematics - Department of Mathematics at Aristotle University of Thessaloniki
Thesis Title: Conformal invariants in the complex plane and the Hardy number of conformal maps
Advisor: Dimitrios Betsakos, Grade: Excellent

Oct 2015 - Jan 2017 - Master of Mathematics - Department of Mathematics at Aristotle University of Thessaloniki
Master Thesis: Conformal invariant quantities in the complex plane and relations between them
Advisor: Dimitrios Betsakos, Grade: Excellent (9.4/10.00)

Sep 2011 - Jul 2015 - Bachelor of Mathematics - Department of Mathematics at Aristotle University of Thessaloniki
Grade: Excellent (9.43/10.00)

Research Interests

Complex Analysis, Geometric Function Theory, Potential Theory, Spaces of Holomorphic Functions.

Employment

Jun 2024 - Present - Assistant Professor in the Department of Mathematics - University of Western Macedonia

Jul 2022 - Jun 2024 - Postdoctoral Researcher in the Department of Mathematics - University of Thessaly

Jan 2020 - Jun 2024 - Postdoctoral Researcher in the Institute for Mathematical Sciences - Stony Brook University

Aug 2019 - Dec 2019 - Visiting Scholar in the Institute for Mathematical Sciences - Stony Brook University

Awards

- Nikolaos K. Artemiadis Award for outstanding research in Mathematical Analysis by the Academy of Athens, Dec 2023.
- Research Programme “Human Resources Development, Education and Lifelong Learning 2014-2020” by Greece and the European Social Fund (ESF), Nov 2019-Jan 2021.
- Onassis Foundation Scholarship for Ph.D. studies in Greece in recognition of excellent academic performance, Oct 2017-Jan 2020.
- Exchange Scholarship of Aristotle University of Thessaloniki for excellent performance in undergraduate and M.Sc. studies, Mar 2016-Nov 2016.

Publications

1. C. Karafyllia and N. Karamanlis, *Geometric characterizations for conformal mappings in weighted Bergman spaces*, **Journal d'Analyse Mathématique** 150 (2023), 303-324.
2. C. Karafyllia, *The Bergman number of a plane domain*, **Illinois Journal of Mathematics** 67 (2023), no. 3, 485-498.
3. C. Karafyllia, *Extremal distance and conformal mappings in Hardy and Bergman spaces*, **The Journal of Geometric Analysis** 33 (2023), no. 5, Paper No. 155, 15 pp.
4. C. Karafyllia, *The range of Hardy numbers for comb domains*, **Computational Methods and Function Theory** 22 (2022), no. 4, 743-753.
5. C. Karafyllia and D. Ntalampekos, *Extension of boundary homeomorphisms to mappings of finite distortion*, **Proceedings of the London Mathematical Society** (3) 125 (2022), no. 3, 488-510.
6. C. Karafyllia, *On the Hardy number of comb domains*, **Annales Fennici Mathematici** 47 (2022), no. 1, 587-601.
7. C. Karafyllia, *On a property of harmonic measure on simply connected domains*, **Canadian Journal of Mathematics** 73 (2021), no. 2, 297-317.
8. D. Betsakos, C. Karafyllia and N. Karamanlis, *Hyperbolic metric and membership of conformal maps in the Bergman space*, **Canadian Mathematical Bulletin** 64 (2021), no. 1, 174-181.
9. C. Karafyllia, *On a relation between harmonic measure and hyperbolic distance on planar domains*, **Indiana University Mathematics Journal** 69 (2020), no. 5, 1785-1814.
10. C. Karafyllia, *On the Hardy number of a domain in terms of harmonic measure and hyperbolic distance*, **Arkiv för Matematik** 58 (2020), no. 2, 307-331.
11. C. Karafyllia, *Hyperbolic distance and membership of conformal maps in the Hardy space*, **Proceedings of the American Mathematical Society** 147 (2019), no. 9, 3855-3858.

Selected Talks in Conferences

1. Advanced Courses in Operator Theory and Complex Analysis, Aristotle University of Thessaloniki, 26-30/6/2023
Title: *Geometric characterizations for conformal maps in Hardy and Bergman spaces*
2. AMS Spring Eastern Virtual Sectional Meeting, 1-2/4/2023
Title: *Optimal bounds for the Beurling-Ahlfors extension*
3. First Workshop of Greek Women in Mathematics, National Technical University of Athens, 11-12/7/2022
Title: *Conformal mappings in spaces of holomorphic functions*
4. ComPlane: the next generation, Online conference, 17-18/6/2021
Title: *Geometric conditions for spaces of holomorphic functions*
5. Second Mid-Atlantic Analysis Meeting, Online Conference, 16-18/10/2020
Title: *Conformal invariants and conformal mappings in Hardy and Bergman spaces*
6. Summer Meeting of Young Researchers in Mathematics, Department of Mathematics, National and Kapodistrian University of Athens, 16-17/7/2019
Title: *Hyperbolic distance and membership of conformal maps in the Hardy space*
7. 2nd Conference of Young Researchers in the Branches of Mathematical Science, Department of Mathematics, University of Ioannina, 1-2/6/2018
Title: *Relations between conformal invariants in the complex plane*
8. 16th Panhellenic Conference on Mathematical Analysis, Department of Mathematics, University of Aegean, 25-27/5/2018
Title: *Harmonic measure, hyperbolic distance and their connection on simply connected domains*