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Academic Qualification

Ph.D. in Mathematics, University of Macau
M.S. in Mathematics, University of Macau
B.S. in Information and Computational Science, Sun Yat-sen Unversity

Teaching Area

Calculus

Research Area

Function theory of one and several complex variables; Harmonic analysis; Differential geometry;
Approximation theory; Clifford analysis; Signal analysis.

Working Experience

2021/09 - present, Assistant Professor, Macau University of Science and Technology, China
2018/11 - 2021/07, Research Fellow, School of Mathematics (Zhuhai), Sun Yat-Sen University, China
2017/04 - 2018/04, Research Assistant, Macau University of Science and Technology, China
2016/09 – 2017/04, 2018/05 - 2018/08, Postdoc & Research Assistant, University of Macau, China

Academic Publication

1. **Weixiong Mai**, Guokuan Shao, On the Bergman kernel in weighted monogenic Bargmann-Fock spaces, Advances in Mathematics, 415 (2023), 1-27.

2. **Weixiong Mai**, Jianyu Ou, Three balls theorem for eigenfunctions of Dirac operator in Clifford analysis, Journal of Mathematical Analysis and Applications, 526 (2023), 1-14.

3. Pei Dang, Chuang Li, **Weixiong Mai**, Wenliang Pan, Uncertainty principles for random signals, Applied Mathematics and Computation, 444 (2023), 1-20.

4. Wenliang Pan, Yujue Li, Jianwu Liu, Pei Dang, **Weixiong Mai**, Metric distribution discrepancy in metric space, Statistics and Its Interface, 16 (2023), 565-578.

5. Pei Dang, **Weixiong Mai**, Wenliang Pan, Uncertainty principle in random Quaternion domains, Digital Signal Processing, 136 (2023), 1-17.

6. **Weixiong Mai**, Tao Qian, Algorithm of adaptive Fourier decomposition in $H^2(C_+)$, International Journal of Wavelets, Multiresolution and Information Processing, 21 (2023), 1-10.

7. Pei Dang, **Weixiong Mai**, Tao Qian, On monogenic reproducing kernel Hilbert spaces of the Paley-Wiener type, Advances in Applied Clifford Algebras, 32 (2022), 1-29.

8. Pei Dang, **Weixiong Mai**, Tao Qian, Adaptive decompositions in monogenic reproducing kernel Hilbert spaces of the Paley-Wiener type, Complex Analysis and Operator Theory, 16 (2022), 1-17.

9. Pei Dang, **Weixiong Mai**, Improved Caffarelli-Kohn-Nirenberg inequalities and uncertainty principle for vector-valued functions, submitted for publication, 2022.

10. **Weixiong Mai**, Jianyu Ou, Liouville theorem on Ricci shrinkers with constant scalar curvature and its application, submitted for publication, arXiv:2208.07101 [math.DG], 2022.

11. Manli Liu, **Weixiong Mai**, Guokuan Shao, On equidistribution theorem for multi-sequences of holomorphic line bundles, submitted for publication, arXiv:2208.03517 [math.CV], 2022.

12. **Weixiong Mai**, Tao Qian, The Fourier type expansions on tubes, Complex Variables and Elliptic Equations, 67 (2022), 433-461.

13. **Weixiong Mai**, Jianyu Ou, Uncertainty principle and its rigidity on complete gradient shriking Ricci solitons, Proceedings of the American Mathematical Society, 149 (2021), 285-299.

14. Pei Dang, **Weixiong Mai**, Tao Qian, Fourier spectrum of Clifford Hp spaces on R^{n+1}_+, for 1\leq p\leq \infty, Journal of Mathematical Analysis and Applications, 483 (2020), 1-19.

15. Pei Dang, **Weixiong Mai**, A remark on Riesz bases of subspaces in Hardy spaces, Complex Variables and Elliptic Equations, 65 (2020), 1950-1961.

16. Tao Qian, Jianzhong Wang, **Weixiong Mai**, An enhancement algorithm for cyclic adaptive Fourier decomposition, Applied and Computational Harmonic Analysis, 47 (2019), 516-525.

17. **Weixiong Mai**, Tao Qian, Rational approximation in Hardy spaces on strips, Complex Variables and Elliptic Equations, 63 (2018), 1721-1738.

18. **Weixiong Mai**, Tao Qian, Aveiro method in reproducing kernel Hilbert spaces under complete dictionary, Mathematical Methods in the Applied Sciences, 40 (2017), 7240-7254.

19. **Weixiong Mai**, Pei Dang, Liming Zhang, Tao Qian, Consecutive minimum phase expansion of physically realizable signals with applications, Mathematical Methods in the Applied Sciences, 39 (2016), 62-72.

20. Qiuhui Chen, **Weixiong Mai**, Liming Zhang, Wen Mi, System identification by discrete rational atoms, Automatica, 56 (2015), 53-59.