Curriculum Vitae for Hussain Al-Qassem

1. Personal Information

- <u>Name in Full:</u> Hussain Mohammed Ahmad Al-Qassem.

- <u>Sex:</u> Male.

- <u>Nationality:</u> Jordanian.

- <u>Marital Status:</u> Married with four children.

2. Current Professional Position

- Professor, Qatar University, Doha-Qatar.

3. Contact Information

- <u>Address:</u> Department of Mathematics, Statistics and Physics, Qatar University, P. O. Box 2713, Doha-Qatar.

- <u>Telephone:</u> +(974)–4403-4610 **(Office).**

- <u>Mobile:</u> 55703990

- <u>E-mail:</u> (1) husseink @qu.edu.qa **(Main)**, (2) hussainqassem@yahoo.com.

- <u>Fax:</u> (974)–4403-4601.

- <u>Office:</u> D 101, Men's Building.

4. Academic Qualifications

- Ph.D. in Mathematics (**1999**), Department of Mathematics, University of Pittsburgh, U.S.A.

  (i) <u>Degree Specialization:</u> Harmonic Analysis.

  (ii) <u>Title of the Ph. D. Thesis:</u> L^p Estimates for Singular Integrals with Kernels Belonging to Certain Block Spaces.

  (iii) <u>Thesis advisor:</u> **Prof. Yibiao Pan**.

- M.A. (**1996**), Department of Mathematics, University of Pittsburgh, U.S.A.

- M.Sc. (**1992**), Department of Mathematics, Yarmouk University, Jordan.

  (i) <u>Degree Specialization:</u> Topology.

  (ii) <u>Title of M. Sc. Thesis:</u> Spaces admitting Closure-Preserving Covers by Small Sets.

  (iii) <u>Thesis advisor:</u> **Prof. Bassam Al-Nashef**.

- B.Sc. (**1990**), Department of Mathematics, Yarmouk University, Jordan.

5. Languages:

Arabic (Native) and English.

6. Employment:

- October 12, 2011-Present, Professor, Math, Stat & Physics Department, Qatar University, Qatar.

- September 9, 2006-October 12, 2011, Associate Professor, Math, Stat & Physics Department, Qatar University, Qatar.

- September 22, 2003-March 2011, Associate Professor, Department of Mathematics, Yarmouk University, Jordan.

- July 1999-2003, Assistant Professor, Department of Mathematics, Yarmouk University, Jordan.

- January 1997-June 1999, Teaching Assistant, Department of Mathematics, University of Pittsburgh, U. S. A.

- February 1994-January 1995, Full-Time Lecturer, Department of Mathematics, Muta'h University, Jordan.

- October 1992-February 1994, Full-Time Lecturer, The college of Zerka, Jordan.

- June 1992-August 1992, Part-Time Instructor, Department of Mathematics, Yarmouk University, Jordan.

7. Research Interest:

- Singular integral operators, Oscillatory integral operators, Maximal operators, Marcinkiewicz integral operators and Block spaces.

8. Teaching Experience:

(1) Courses taught at Yarmouk University:

Courses Taught at Graduate Level:

1. Measure Theory and Integration

2. Complex Analysis

3. Advanced Functional Analysis

4. Abstract Harmonic Analysis

Courses Taught at Undergraduate Level:

1. Calculus I

2. Calculus II

3. Fundamentals of Mathematics (for Computer Science students)

4. Discrete Mathematics (for Computer Science students)

5. Ordinary Differential Equations

6. Special Functions

7. Real Analysis I

8. Real Analysis II

9. Complex Analysis I

10. Complex Analysis II

11. Functional Analysis

(2) Courses taught at Qatar University:

1. Foundations of Mathematics

2. Applied Mathematics

3. Advance Mathematics

4. Calculus I

5. Calculus II

6. Calculus III

7. Calculus IV

8. Numbers & Basic Algebra

9. Complex Analysis I

10. Intermediate Algebra

11. Linear Algebra

12. Basic Analysis

9. Committee Service:

(1) Committees at Yarmouk University:

Department Committees:

- Development and Planning Committee.
- Computer Committee.
- Library Committee.
- Qualifying Examination and Basic Examination Committees for Master students.
- Study Schedule Committee.
- Seminar Committee.
- Scholarship and Recruitment Committee.

College Committees:

- Member of the college of science council.
- Curriculum planning committee.

  (2) Committees at Qatar University :

- Department Committees:

- Social Committee.
- Book Committee.
- Student Advising Committee.
- Course Equivalence Committee.
- Schedule Committee.
- Faculty Recruitment Committee
- Curriculum Committee (Department level).
- Strategic Plan Committee.
- Evaluation Committee for Faculty Course Portfolios.
- Member and chair of several promotion committees from the rank of Assistance Professor to the rank of Associate Professor and from the from the rank of Associate Professor to the rank of Professor.

- Member of several ad hoc committees.
- <u>College Committees:</u>

- Faculty Recruitment Committee (Chair)
- CAS Promotion Committee.
- CAS Research Committee.
- Curriculum Committee.
- Conferences Committee
- Retention Committee.
- <u>University Committees:</u>

- Council of the Core Curriculum Committee.
- Core Curriculum Coordination Council.
- University Core Curriculum Committee.
- Academic Program Review and Curriculum Enhancement Committee).
- Restructuring Foundation Courses Committee

10. <u>Membership in Professional Organizations:</u>

- American Mathematical Society (1999-2002, 2011-Present).
- Jordanian Mathematical Society (2000-2004).
- Research Group in Mathematical Inequalities and Applications (RGMIA) (2002-Present).

11. <u>Academic Honors and Awards:</u>

- Royal Grant for a B.Sc. in Mathematics (1986).
- A scholarship for a Ph. D. degree in Mathematics (1995).
- Ranked 1st among B.Sc. graduates and 2nd among all graduates (1990).

- Ranked second among M. Sc. Graduates (1992).

- Ph. D. dissertation ranked top over the previous five years and considered among the best in the department's history (1999).

- Best Research Paper Award in the conference : "Annual International Conference on Computational Mathematics, Computational Geometry & Statistics (CMCGS 2012).

12. Conferences:

- The Fifth Jordanian International Congress of Mathematics (FJICM), Singular integrals associated to homogeneous mappings with rough kernels, Yarmouk University, Irbid-Jordan, Sept. 3–5, 2002.

- 2nd International conference on mathematical sciences (ICoMS 2007), On the boundedness of certain rough singular integral operators, Johor, Malaysia, May 27–28, 2007.

- Fourth Pacific Rim Conference on Mathematics, On certain estimates for Marcinkiewicz integrals and Extrapolation, City University of Hong Kong, Hong Kong, December 7–11, 2007.

- Fifth International Conference of Applied Mathematics and Computing, On rough maximal operators and Marcinkiewicz integrals along submanifolds, Plovdiv, Bulgaria, August 12–18, 2008.

- The Second International Conference on Mathematics and Natural Sciences (ICMNS), On certain rough integral operators and extrapolation, Institut Teknologi, Bandung, Indonesia, October 28–30, 2008.

- Fifth Asian Mathematical Conference (AMC 2009), On the boundedness of a class of rough maximal operators on product spaces, Kuala Lumpur, Malaysia, June 22–26, 2009.

- ICCM 2010: "International Conference on Computational Mathematics", Certain Estimates of Oscillatory Integrals and Extrapolation, Tokyo, May 26–28, 2010.

- The 6th IMT-GT International Conference on Mathematics, Statistics and its applications (ICMSA2010), On the boundedness of rough oscillatory singular integrals on Trieble-Lizorkin spaces, Kuala Lumpur, Malaysia, Nov. 3–4, 2010.

- ICMSSC 2011 : "International Conference on Mathematics, Statistics and Scientific Computing", ON Certain Estimates of Rough Oscillatory Singular Integrals, Bangkok, Thailand, March 29-31, 2011.

- CMCGS 2012: "Annual International Conference on Computational Mathematics, Computational Geometry & Statistics", On Estimates of Rough Oscillatory Integrals on the unit sphere, Singapore, January 30-31, 2012.

- ICMSS2013: International Conference on Mathematical Sciences and Statistics 2013, Boundedness of rough integral operators on Triebel-Lizorkin spaces, Kuala Lumpur, Malaysia, February 5 - 7, 2013.

- ICMSE 2013: International Conference on Mathematics and Statistical Engineering, Rough Oscillatory Singular Integrals on $\mathbf{R}^n$, November 25-26, 2013, Thailand.

- ICWOMA 2014: International Conference & Workshop on Mathematical Analysis, A Class of Oscillatory Singular Integrals with Rough Kernels, Kuala Lumpur, Malaysia, May 27-30, 2014.

- ICRAPAM 2014: International Conference on Recent Advances in Pure and Applied Mathematics, Bounds for Oscillatory Singular Integrals on $\mathbf{R}^n$, Antalya, Turkey, November 6-9, 2014.

- CMCGS 2016: "5th Annual International Conference on Computational Mathematics, Computational Geometry & Statistics", On L^p Estimates of Rough Parametric Marcinkiewicz Integrals and Extrapolation, Singapore, January 18-19, 2016.

- ICMA-MU 2016: International Conference in Mathematics and Applications, Sharp estimates of oscillatory singular integrals with rough kernels, Thailand, December 17-19, 2016.

13. Workshops:

- A Workshop on preparing a course portfolio, January 29-31, 2007, Participant, Qatar University.

- A Workshop on acting learning, February 4-6, 2007, Participant, Qatar University.

- A Workshop on Using the Blackboard System for Delivering University Courses, April 8-12, 2007, Participant, Qatar University.

- Workshop on WeBWork for Mathematics and Statistics Courses, June 5, 2008, Participant, Qatar University.

- Mathematica Workshop, Participant, Wolfram Education Group, November 5, 2008, Mathematics, Statistics & Physics Department, Qatar University.

- A workshop on Integrating Mathematica in Teaching and Research, October 7, 2009, Mathematics, Statistics & Physics Department, Qatar University.

- Autograph Workshop, March 9, 2009, Participant, Mathematics, Statistics & Physics Department, Qatar University.

- A workshop on Academic Promotion, February 24, 2010, Participant, Qatar University.

14. Seminars:

- On the boundedness of maximal operators and singular operators with kernels in $L(\log L)^\alpha(\mathbf{S}^{n-1})$, November 13, 2006, Mathematics, Statistics & Physics Department, Qatar University.

- On Certain Estimates for Marcinkiewicz Integrals and Extrapolation, November 20, 2007, Mathematics, Statistics & Physics Department, Qatar University.

- On certain rough integral operators and extrapolation, October 20, 2008, Mathematics, Statistics & Physics Department, Qatar University.

- On the boundedness of rough oscillatory singular integrals on Triebel-Lizorkin spaces, November 22, 2010, Mathematics, Statistics & Physics Department, Qatar University.

15. Research Guidance:

- Seven candidates have been awarded M.Sc. degrees at Yarmouk university under my supervision with the following titles:

(1) Rough singular integrals along surfaces of revolution, April 2003.

(2) L^p estimates for a singular integral operator with a rough kernel on product spaces, April 2004.

(3) L^p boundedness of certain rough singular integral operators on product spaces, Nov. 2004.

(4) On singular integral operators with kernels belonging to certain block spaces, April 2005.

(5) On the L^p boundedness of rough Marcinkiewicz integral operators, July 2005.

(6) On the L^p boundedness of rough Marcinkiewicz integral operators on product spaces, April 2006.

(7) Marcinkiewicz integral operators with kernels belonging to certain block spaces, July 2006.

- Member of several defense exam committees for Master theses in Mathematics.

16. Refereeing and Reviewing:

- Refereed peer reviewed publications in international journals including for: Journal of Inequalities and Applications, Journal of the Korean Mathematical Society, SCIENCE CHINA Mathematics, Applied Mathematics Journal of Chinese Universities, Mathematische Nachrichten, International Journal of Analysis, Open Mathematics, Jordan Journal of Mathematics and statistics, Indian Journal of Mathematics, Bulletin of the Allahabad Mathematical Society and Journal of Mathematical Research with Applications.

- A reviewer for Mathematical Reviews. Reviewed over 40 papers over the past five years.

- A reviewer for Zentralblatt MATH.

- Member of the editorial board of International Journal of Applied & Experimental Mathematics

17. List of Published and Accepted Papers:

Total research papers are **60** in the field of Harmonic analysis. Many of them appear in top ranked journals.

I. Peer Reviewed Journal Publications.

[1] **H. Al-Qassem** and A. Al-Salman, Rough Marcinkiewicz integral operators, Int. J. Math. Math. Sci. **27** (8) (2001), 495-503

[2] **H. Al-Qassem** and A. Al-Salman, L^p boundedness of a class of singular integral operators with rough kernels, Turk. J. Math. **25**, No. 4 (2001), 519–533.

[3] A. Al-Salman and **H. Al-Qassem**, Flat Marcinkiewicz Integral Operators, Turkish J. Math. **26**, No. 3 (2002), 329-338.

[4] A. Al-Salman, **H. Al-Qassem**, L. Cheng and Y. Pan, L^p bounds for the function of Marcinkiewicz, Math. Res. Lett. **9** (2002), 697–700.

[5] A. Al-Salman and **H. Al-Qassem**, Integral operators of Marcinkiewicz type, J. Integ. Eq. Appl., **14**, No. 4 (2002), 343–354.

[6] **H. Al-Qassem** and Y. Pan, L^p boundedness for singular integrals with rough kernels on product domains, Hokkaido Math. J. **31** (2002), 555–613.

[7] **H. Al-Qassem** and Y. Pan, L^p estimates for singular integrals with kernels belonging to certain block spaces, Revista Matemática Iberoamericana **18**, No. 3 (2002), 701–730.

[8] **H. Al-Qassem** and A. Al-Salman, A note on Marcinkiewicz integral operators, J. Math. Anal. Appl. **282** (2003), 698–710**.**

[9] **H. Al-Qassem,** Rough Singular Integrals Along Submanifolds of Finite Type on Product Domains, Turk. J. Math. **27**, No. 4 (2003), 549–564.

[10] **H. Al-Qassem** and A. Al-Salman, Rough Marcinkiewicz Integrals Related to Surfaces of Revolution, Asian J. Math. **7**, No. 2 (2003), 219–230.

[11] **H. Al-Qassem** and Y. Pan, Singular Integrals along Surfaces of Revolution with Rough Kernels, SUT J. Math. Vol. **39**, No. 1, (2003), 55–70.

[12] **H. Al-Qassem**, Singular integrals along Surfaces on product domains, Analysis in Theory and Applications **22**, 2 (2004), 99–112.

[13] **H. Al-Qassem** and A. Al-Salman and Y. Pan, Singular integrals associated to homogeneous mappings with rough kernels, Hokkaido Math. J. **33** (2004), 551–569.

[14] **H. Al-Qassem**, L^p estimates for rough parametric Marcinkiewicz integrals, SUT J. of Math. **40**, No. 2 (2004), 117–131.

[15] A. Al-Salman and **H. Al-Qassem**, Rough Singular integrals on product spaces, Int. J. Math. Math. Sci. 2004: **67** (2004), 3671–3684.

[16] **H. Al-Qassem** and A. Al-Salman and Y. Pan, Rough Singular Integrals with Kernels Supported by Submanifolds of Finite Type, Asian J. Math. **9**, No. 1 (2005), 19–30.

[17] **H. Al-Qassem**, Weighted boundedness of a rough homogeneous singular integrals, Turk. J. Math. **29**, No.1 (2005), 77–97.

[18] **H. Al-Qassem**, Weighted L^p estimates for a rough maximal operator, Kyungpook Math. J. **45** (2005), 255–272.

[19] **H. Al-Qassem**, A. Al-Salman, L. Cheng and Y. Pan, Marcinkiewicz integrals on product spaces, Studia Math., **167**, No.3 (2005), 227–234.

[20] **H. Al-Qassem**, Maximal operators related to block spaces, Kodai Math. J. **28** (2005), 494–510.

[21] **H. Al-Qassem**, L^p estimates for a rough maximal operator on product spaces, J. Korean Math. Soc. **42**, No.3 (2005), 405–434.

[22] **H. Al-Qassem**, Weighted norm inequalities for a class of rough singular integrals, Int. J. Math. Math. Sci. **5** (2005), 657–669.

[23] **H. Al-Qassem**, Rough Marcinkiewicz integral operators on product spaces, Collect. Math. **56**, 3 (2005), 275–297.

[24] **H. Al-Qassem** and Y. Pan, A class of maximal operators related to rough singular integrals on product spaces, J. Integ. Eq. Appl. **17**, 4 (2005), 331–356.

[25] **H. Al-Qassem,** Weighted L^p Boundedness for the Function of Marcinkiewicz, Kyungpook Math. J. **46** (2006), 31–48.

[26] **H. Al-Qassem**, On weighted inequalities for parametric Marcinkiewicz integrals, J. Integ. Eq. Appl. **2006** (2006), 1–17.

[27] **H. Al-Qassem** and M. Ali, L^p boundedness for singular integral operators with $L(\log L)^2$ kernels on product spaces, Kyungpook Math. J. **46** (2006), 377–387.

[28] **H. Al-Qassem** and M. Ali, Singular integrals related to homogeneous mappings with rough kernels on product spaces, Abhath Al-Yarmouk J. Pure Science and Engineering Series, **15** (1) (2006), 119–139.

[29] **H. Al-Qassem,** Weighted norm inequalities for a class of rough maximal operators, Turk. J. Math. **30**, (2006), 413–438.

[30] **H. Al-Qassem** and A. Al-Salman and Y. Pan, Singular Integrals on Product Domains, Indiana university Math. J. **55**, 1 (2006), 369–387.

[31] **H. Al-Qassem**, On the boundedness of maximal operators and singular operators with kernels in $L(\log L)^{\alpha}(\mathbf{S}^{n-1})$, J. Ineq. Appl. **2006** (2006), 1–16.

[32] **H. Al-Qassem**, Oscillatory integrals on the unit sphere, Southeast Asian Bull. Math. **30** (2006), no. 1, 1–21.

[33] **H. Al-Qassem,** Weighted estimates for rough parametric Marcinkiewicz integrals, J. Korean Math. Soc. **44**, 6 (2007), 1255–1266.

[34] **H. Al-Qassem**, On certain rough maximal operators and singular integrals, SUT J. Math. **43**, 1 (2007), 1–22.

[35] A. Al-Salman and **H. Al-Qassem**, L^p Boundedness of Rough Parametric Marcinkiewicz Functions, J. Inequal. Pure and Appl. Math., vol. **8**, iss. 4, art. 108, 2007.

[36] **H. Al-Qassem** and M. Ali, L^p estimates for a singular integral operator with a rough kernel on product spaces, Tamkang J. Math. **39** (2008), no. 2, 165–176.

[37] **H. Al-Qassem** and Y. Pan, On rough maximal operators and Marcinkiewicz integrals along submanifolds, Studia Math. **190** (2009), no. 1, 73–98.

[38] **H. Al-Qassem** and Y. Pan, On certain estimates for Marcinkiewicz integrals and extrapolation, Collect. Math. **60** (2009), no. 2, 123–145.

[39] **H. Al-Qassem,** L. Cheng, and Y. Pan, On Certain Rough Integral Operators and Extrapolation, J. Inequal. Pure and Appl. Math., vol. **10**, iss. 3, art. 78, 2009.

[40] **H. Al-Qassem,** L. Cheng, and Y. Pan, On the boundedness of a class of rough maximal operators on product spaces, Hokkaido Math. J., Vol. **40** (2011), p. 1–32.

[41] **H. Al-Qassem,** L. Cheng and Y. Pan, Rough oscillatory singular integrals on $\mathbf{R}^n$, Acta Math. Sin. (Engl. Ser.) **27** (2011), no. 10, 1881–1898.

[42] **H. Al-Qassem,** L. Cheng, and Y. Pan, Boundedness rough singular integral on Triebel-Lizorkin spaces, Publ. Mat. **56** (2012), 261–277.

[43] **H. Al-Qassem,** L. Cheng, A. Fukui and Y. Pan, Weighted Estimates for Oscillatory Singular Integrals, Journal of Function Spaces and Applications, Volume 2013, Article ID 543748, 3 pages.

[44] **H. Al-Qassem,** L. Cheng, and Y. Pan, Rough Oscillatory Singular Integrals on $\mathbf{R}^n$, Studia Math. **221** (2014), no. 3, 249–267.

[45] **H. Al-Qassem,** L. Cheng, and Y. Pan, Estimates for oscillatory singular integrals on Hardy spaces, Studia Math. **224** (2014), no. 3, 277–289.

[46] **H. Al-Qassem,** L. Cheng, and Y. Pan, Logarithmic Bounds for Oscillatory Singular Integrals on Hardy Spaces, Journal of Function Spaces, Volume 2016 (2016), Article ID 1570109, 5 pages.

[47] **H. Al-Qassem,** L. Cheng, and Y. Pan, On Rough Generalized Parametric Marcinkiewicz Integrals, Journal of Mathematical Inequalities, **11** (2017), no. 3, 763–780.

[48] **H. Al-Qassem,** L. Cheng, and Y. Pan, Sharp Bounds for Oscillatory Singular Integrals on Hardy Spaces, Studia Math. **238** (2017), no. 2, 121–132.

[49] **H. Al-Qassem,** L. Cheng, and Y. Pan, On generalized Littlewood–Paley functions, Collect. Math., May 2018, Volume 69, Issue 2, pp 297–314.

[50] **H. Al-Qassem,** L. Cheng, and Y. Pan, Oscillatory singular integral operators with Hölder class kernels, Journal of Fourier Analysis and Applications, August 2019, Volume 25, Issue 4, pp 2141–2149.

[52] **H. Al-Qassem,** L. Cheng, and Y. Pan, Endpoint Estimates for Oscillatory Singular Integrals with Hölder Class Kernels, Journal of Function Spaces, Volume 2019 (2019), Article ID 8561402, 7 pages.

[53] **H. Al-Qassem,** L. Cheng, and Y. Pan, Generalized Littlewood-Paley Functions on Product Spaces, Turk J. Math. (2021) 45: 319 – 345.

[54] **H. Al-Qassem,** L. Cheng, and Y. Pan, A Vander Corput Type Lemma for Oscillatory Integrals with Hölder Amplitudes and its Applications, J. Korean Math. Soc. 58 (2021), No. 2, pp. 487–499.

2. Peer Reviewed Conference Proceedings Publications.

[1] A. Al-Salman and **H. Al-Qassem**, Singular integrals along flat curves with kernels in the Hardy space $H^1(\mathbf{S}^{n-1})$, Proc. of the Conference FSORP-Madeira in honor of Prof. Georgii Litvinchuk, Kluwer Academic publishers London, 2003, 1–12.

[2] **H. Al-Qassem**, On the L^p boundedness of certain rough singular integral operators, MATEMATIKA, Special Edition, Part 1, 2008, 2nd ICoMS 2007, 71–79.

[3] **H. Al-Qassem,** Certain Estimates of Oscillatory Integrals and Extrapolation. Proceedings of World Academy of Science, Engineering and Technology, 65 (2010), pp. 434–438.

[4] **H. Al-Qassem,** On Certain Estimates of Rough Oscillatory Singular Integrals. Proceedings of World Academy of Science, Engineering and Technology, 75 (2011), pp. 660–663.

[5] **H. Al-Qassem,** On Estimates of Rough Oscillatory Integrals on the unit sphere, Annual International Conference on Computational Mathematics, Computational Geometry & Statistics (CMCGS 2012), Singapore, January 30-31, 2012.

[6] **H. Al-Qassem,** On L^p Estimates of Rough Parametric Marcinkiewicz Integrals and Extrapolation, 5th International Annual Conference on Computational Mathematics, Computational Geometry & Statistics (CMCGS 2016), Singapore, January 18–19, 2016.