

Majid Mazrooei

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University of Kashan
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EDUCATION

Isfahan University of Technology

Ph.D. in Pure Mathematics

March 2012

Dissertation: "A module theoretic approach to the study and generalizations of some extensions of commutative rings."

GPA: **18.13/20**

Isfahan University of Technology

M.Sc. in Mathematics

February 2007

Thesis: "On the algebraic structure of quasi-cyclic codes: repeated roots."

GPA: **18.96/20 (Ranked First)**.

Isfahan University of Technology

B.Sc. in Mathematics

September 2004

GPA: **18.61/20 (Ranked First)**.

AWARDS AND HONORS

- First rank among the pure mathematics undergraduate students in Isfahan University of Technology. **2000 – 2001**
- University Undergraduate Fellowship. **2000-2001**
Awarded to the best undergraduate students, IUT.
- First rank among the pure mathematics undergraduate students in Isfahan University of Technology. **2001 – 2002**
- University Undergraduate Fellowship. **2001-2002**
Awarded to the best undergraduate students, IUT.
- First rank among the pure mathematics undergraduate students in Isfahan University of Technology. **2002 – 2003**
- University Undergraduate Fellowship. **2002-2003**
Awarded to the best undergraduate students, IUT.
- Graduated with first rank among the mathematics undergraduate students in Isfahan University of Technology. **2004**
- 12th rank in the Iranian universities entrance exam of master degree. **2004**

- Graduated with first rank among the mathematics graduate students in Isfahan University of Technology. **2007**
- University graduate Fellowship. **2004-2007**
Awarded to the best graduate students, IUT.
- "High Talented Student" of Isfahan University of Technology. **2000-2012**

TEACHING EXPERIENCE

Instructor (Isfahan University of Technology)**2007-2012**

Calculus I, Calculus II, Ordinary Differential Equations, Engineering Mathematics.

Instructor (University of Kashan)**2011-until Now**

Advanced Linear Algebra, Foundations of Mathematics, Calculus I, Calculus II, Ordinary Differential Equations, Engineering Mathematics, Algebra I, Topics in Algebra, The Theory of Rings and Fields, Advanced Algebra for Graduate Students, Game Theory, English for Mathematics Students, Topics in Rings and Modules, Coding Theory, Lectures in Coding Theory.

Instructor (Islamic Azad University of Khorasgan)**2006-2012**

Linear Algebra, Real Analysis, Graph Theory, Discrete Mathematics, Calculus I, Calculus II, Ordinary Differential Equations, Engineering Mathematics.

Teaching Assistant (Isfahan University of Technology)**2007-2012**

Collaborated on curriculum and exam development, met with students upon request, and graded all written work, including final exam papers.

PUBLICATIONS AND PAPERS

• Papers

- A. Haghany, M. Mazrooei and M. R. Vedadi, "Pure projectivity and pure injectivity over formal triangular matrix rings", *Journal of Algebra and Its Applications*, Vol. 11, No. 6 (2012).
- A. Haghany, M. Mazrooei and M. R. Vedadi, "Bounded and fully bounded modules", *Bull. Aust. Math. Soc.*, 84 (2011).
- A. Haghany, M. Mazrooei and M. R. Vedadi, "On the Krull dimension of Endo-bounded modules", *Turkish Journal of Mathematics* (accepted).
- A. Zaghian and M. Mazrooei, "Generalized Traceability Codes", *U.P.B. Sci. Bull., Series A*, Vol. 78, Iss. 2, 2016.
- M. Mazrooei and A. Rafieepour, "On a Class of Linear Codes", *The Conference on Computational Algebra, Computational Number Theory and Applications, CACNA 2014*, University of Kashan, Iran.
- M. Mazrooei, L. Rahimi and N. Sahami, "Two-dimensional generalized discrete Fourier transform and related quasi-cyclic Reed-Solomon codes", *Turk. J. Math*, 2017. DOI: mat-1607-49/10.3906
- M. Mazrooei, L. Rahimi, A. Rafieepour and N. Sahami, "A generalization of Reed-Solomon Codes based on generalized discrete Fourier transform", Submitted.
- M. Mazrooei and A. rafieepour, "Some new constructions of linear codes", Submitted.
- M. Mazrooei, "Stabilizer rings", Submitted.

• Books

- M. Mazrooei, *An Introduction to abstract algebra*, University of Kashan Press (2017).
 - M. Mazrooei, *Essentials of game theory*, translation to Persian, under review by University of Kashan Press (2017).
 - M. Mazrooei, R. Kazemi and A. Nokhodkar, *Calculus II*, under review.
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RESEARCH PROJECTS

- Prime ideals in quantum algebras, University of Kashan, 2016.
- Stabilizer Rings, In progress.
- U-prime modules, In progress.
- Quantum cyclic codes.

RESEARCH INTERESTS

- Algebraic Quantum Groups.
 - Rings and Module Theory.
 - Algebraic Coding Theory.
 - Game Theory.
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