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EDUCATION

Sharif University of Technology
Ph.D. in pure Mathematics   **July 2014**
Dissertation: "Hyperbolic and metabolic forms and involutions"

Sharif University of Technology
M.Sc. in Pure Mathematics   **September 2009**
Thesis: "Supreme Pfister forms"

Sharif University of Technology
B.Sc. in Pure Mathematics   **July 2007**

AWARDS AND HONORS

- 3th rank in the Iranian universities entrance exam of master degree.   **2007**

- "High Talented Student" of Sharif University of Technology
                                                                                2009-2014

TEACHING EXPERIENCE

Instructor (Sharif University of Technology)   **2009-2010**
Calculus II, Ordinary Differential Equations.

Instructor (University of Kashan)   **2012-until Now**
Calculus I, Calculus II, Basic algebra, Ring and field theory, Foundation of mathematics, Advanced algebra, Foundation of matrices and linear algebra, Foundation of logic and set theory.

Teaching Assistant (Sharif University of Technology)   **2011-2012**
Advanced algebra

RESEARCH INTERESTS

- Algebras with involution
- Quadratic and bilinear forms
- Hermitian forms

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PUBLICATIONS

Journal papers

- Mahmoudi, M. G.**;** Nokhodkar, A.-H. On split products of quaternion algebras with involution in characteristic two. *J. Pure Appl. Algebra* **218** (2014), no. 4, 731--734.
- Mahmoudi, M. G.**;** Nokhodkar, A.-H. Involutions of a Clifford algebra induced by involutions of orthogonal group in characteristic 2. *Comm. Algebra* **43** (2015), no. 9, 3898--3919.
- Mahmoudi, M. G.**;** Nokhodkar, A.-H. On totally decomposable algebras with involution in characteristic two. *J. Algebra* **451** (2016), 208--231.
- Nokhodkar, A.-H. Applications of the Wall form to unipotent isometries of index two. *Comm. Algebra* **45** (2017), no. 3, 1019--1027.
- Nokhodkar, A.-H. The chain equivalence of totally decomposable orthogonal involutions in characteristic two. *J. Algebra* **472** (2017), 414--424.
- Nokhodkar, A.-H. Symmetric square-central elements in products of orthogonal involutions in characteristic two. *Bull. Aust. Math. Soc.* **96** (2017), no. 3, 412--425.
- Nokhodkar, A.-H. Orthogonal involutions and totally singular quadratic forms in characteristic two. *Manuscripta Math.* **154** (2017), no. 3-4, 429--440.
- Nokhodkar, A.-H. Descent properties of biquaternion algebras with involution. *Math. Nachr.* **290** (2017), no. 14-15, 2334--2340.
- Nokhodkar, A.-H. Quadratic descent of totally decomposable orthogonal involutions in characteristic two. *J. Pure Appl. Algebra* **221** (2017), no. 4, 948--959.
- Nokhodkar, A.-H. On the decomposition of metabolic involutions. *J. Algebra Appl.* **16** (2017), no. 7, 1750129, 11 pp.
- Nokhodkar, A.-H. Pfister involutions in characteristic two. Bull. London Math. Soc., **49** (2017), 505–511.
- Nokhodkar, A.-H. Separable extensions of orthogonal involutions in characteristic two. *J. Algebra,* **501** (2018), 44--50.
- Nokhodkar, A.-H. On biquaternion algebras with orthogonal involutions. *Turk. J. Math.,* **42** (2018), 752-762
- Nokhodkar, A.-H. Isotropy of orthogonal involutions in characteristic two. *J. Algebra Appl.,* **17** (2018), no. 12, 1850240, 8 pp.
- Nokhodkar, A.-H. Separable descent of totally decomposable orthogonal involutions in characteristic two. *Comm. Algebra* **46** (2018), no. 12, 5283--5289.
- Nokhodkar, A.-H. On the second trace form of biquaternion algebras with involution. *Bull. Iranian Math. Soc.* **44** (2018), no. 6, 1591--1598.
- Nokhodkar, A.-H. Quadratic descent of hermitian forms. *Math. Nachr.* **292** (2019), no. 10, 2294--2299.
- Nokhodkar, A.-H. Applications of systems of quadratic forms to generalised quadratic forms. *Bull. Aust. Math. Soc.* **102** (2020), no. 3, 374--386.
- Nokhodkar, A.-H. Quadratic D-forms with applications to hermitian forms. *J. Pure Appl. Algebra* **224** (2020), no. 6, 106259, 14 pp.
- Nokhodkar, A.-H. Erratum to the paper "Quadratic descent of hermitian forms". *Math. Nachr.* **293** (2020), no. 9, 1836--1838.
- Nokhodkar, A.-H. On the possible decompositions of totally decomposable orthogonal involutions in characteristic two. *J. Algebra Appl.* **20** (2021), no. 2, Paper No. 2150013, 9 pp.
- Nokhodkar, A.-H. The metabolicity index of involutions in characteristic two. *J. Pure Appl. Algebra* **225** (2021), no. 10, Paper No. 106716, 20 pp.

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Conference papers

- Nokhodkar, A.-H. The group of elements represented by multi-quaternion algebras with orthogonal involution in characteristic two (In Persian). *9th Iranian Group Theory Conference*, Kashan, Iran, February 1-3, 2017.
- Nokhodkar, A.-H. The Wall form and the spinor norm in the orthogonal group. *9th Iranian Group Theory Conference,* Kashan, Iran, February 1-3, 2017.
- Nokhodkar, A.-H. On split Clifford algebras with involution in characteristic two. *46th Annual Iranian Mathematics Conference.* Yazd, Iran, August 25-28, 2015.
- Nokhodkar, A.-H. Applications of the Clifford algebra to totally decomposable orthogonal involutions in characteristic two. *49th Annual Iranian Mathematics Conference.* Tehran, Iran, August 23-26, 2018.
- Nokhodkar, A.-H. A generalization of the Jacobson's trace form. *49th Annual Iranian Mathematics Conference.* Tehran, Iran, August 23-26, 2018.
- Nokhodkar, A.-H. On similitudes of pseudo-quadratic forms in characteristic two. *49th Annual Iranian Mathematics Conference.* Tehran, Iran, August 23-26, 2018.

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