

ANNEX B

UNIVERSITY OF MILAN

Public selection for recruiting No. _ tenure track researcher(s) (RTT) for competition sector _____, (scientific-disciplinary sector _____) at the Department of _____, (announcement published in Official Gazette No. _____ of _____) -
Competition code 5468

[Zeinab Akhlaghi] CURRICULUM VITAE

(N.B. CV MUST BE OF UP TO 30 PAGES AND INCLUDE THE DETAILS CANDIDATES CONSIDER USEFUL FOR THE ASSESSMENT.

ALL THE TITLES INSERTED BELOW ARE JUST EXAMPLES THAT CAN BE REPLACED, CHANGED OR COMPLETED)

PERSONAL DATA (DO NOT INCLUDE YOUR PERSONAL ADDRESS AND LANDLINE OR MOBILE PHONE NUMBER)

SURNAME	ZEINAB
NAME	AKHLAGHI
DATE OF BIRTH	[18,09, 1983]

QUALIFICATIONS

Degree

(Specify qualification full name, institution, date, etc.)

Master in Mathematics(Algebra), Amirkabir university of technology, 18/09/2007

DOCTORAL DEGREE OR EQUIVALENT QUALIFICATION EARNED IN ITALY OR ABROAD / MEDICAL SPECIALISATION DIPLOMA OR EQUIVALENT QUALIFICATION, FOR THE RELEVANT SECTORS, EARNED IN ITALY OR ABROAD

(Specify qualification full name, institution, date, etc.)

Phd in Mathematics(Algebra), Amirkabir university of technology, 19/09/2011

RESEARCH CONTRACTS, RESEARCH FELLOWSHIP CONTRACTS, POSTDOCTORAL SCHOLARSHIPS OR SIMILAR CONTRACTS

(Specify, for each contract, university/institution, starting and termination date, etc.)

Aug 2010 – March 2011 Earning Scholarship from ministry of science of Iran for having 6 mounths research visit of polytechnic university of valencia and University of Jaume I, working with Antonio Beltran and Maria Jose Felipe. (it is iven to distinguished phd students)

Aug 2012 –Aug 2013 Earning Postdoctoral scholarship for 2 years from Kwazulu Natal university, South Africa

March 2020-March 2021: Project No.: 99200028

Grant Giver: Institute for fundamental science of Iran (IPM)

Project Title: The Influence of Character Degrees and Related Quantities on the Structure of the Groups

March 2021-March 2022:

Project No:1400200028

Grant giver:Institute for fundamental science of Iran (IPM)

Project Title: On the Multiplicity of Character Codegrees

March 2022-March 2023:

Project No.: 1401200113

Grant Giver: Institute for fundamental science of Iran (IPM)

Project Title: On the Average of some Character Degrees and P-Solvability of Group

March 2023-March 2024:

Project No.:1402100112

Grant Giver: Institute for fundamental science of Iran (IPM)

Project Title: Element orders and character codegrees

Let me explain that, the funds that we receive from the Institute of Fundamental Science of Iran (IPM) are very competitive and each year only a few number of applications are granted. It means a personal merit to keep this recurrent funding, which is dedicated to boost my lines of research inside and outside my country. It is worth mentioning that I am the only group theorist working as a resident researcher in IPM and IPM is the only institute to finance mathematics research in my country.

TEACHING ACTIVITIES AT ITALIAN OR FOREIGN UNIVERSITIES*(Specify academic year, university, degree course, number of hours etc.)*

When I was a Ph. D student, I was teaching as an instructor or teaching assistant in different universities and from 2014 I am teaching at Tehran Polytechnic. During these years I have taught several undergraduate courses to mathematics students, for instance:

Algebra I (6 semester), Algebra II (4 semester), Galois Theory and its application(once), Combinatorial and discrete math(6 semester each semester two classes), Linear Algebra (once), Number theory (3 semester), Calculus I (10 semester) and Calculus II (8 semester).

Also I have taught Group Theory (3 semester), Character theory (once) to postgraduate students. I have to teach three courses each semester.

ATTESTED TRAINING OR RESEARCH ACTIVITIES AT QUALIFIED ITALIAN OR FOREIGN INSTITUTIONS*(Specify academic year, institution, course, period, etc.)*

Mar 2018 Visiting researcher at Florence University for 1 month working with Prof. Silvio Dolfi, Prof. Emanuele Pacifici and Prof. Carlo Casolo.

Aug 2018 Visiting researcher at Florence University for 1month, working with the same team.

Mar 2023 Visiting researcher at Florence University for 1month working with the same team

July 2023 Visiting researcher at Polytechnic university of Valencia, working with Maria Jose Felipe and Victor Sotomayor

ATTESTED ACTIVITY IN THE CLINICAL FIELD*(Specify date, duration, role, institution where the aid activity was carried out, etc.)*

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IMPLEMENTATION OF PROJECTS*(Specify date, project name, etc.)*

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ORGANISATION, SUPERVISION AND COORDINATION OF NATIONAL AND INTERNATIONAL RESEARCH GROUPS, OR PARTICIPATION IN THEM

(For each entry, specify year, role, research group, etc.)

- Master Student: Zohreh Sayanjali
Title: Algebra and Cryptography
Supervisors: Farhad Rahmati and Zeina Akhlaghi
University: Tehran Polytechnic (Sep 2016)
- Master Student: Saadat Abbasi Atashgah
Title: Regular Character degree graph
Supervisor : Zeinab Akhlaghi
University: Tehran Polytechnic (Sep 2018)
- Master Student: Behnam Hesary
Title: Hamiltonian character degree graph
Supervisor: Zeinab Akhlaghi
University: Tehran Polytechnic (Mar 2018)
- Ph. D Student: Khatoon Khedri
Title: On the character degree graph of a group
Supervisors: Zeinab Akhlaghi and Bijan Taeri
University: Esfahan University of technology
- Ph. D Student: Zohreh Sayanjali
Title: The influence of the set of character degrees of finite groups on the structure of the groups.
Supervisors: Behrooz Khosravi and Zeinab Akhlaghi
University: Tehran Polytechnic (December 2020)
- Ph. D Student: Afsaneh Bahri
Title: On the relation between the structure of a finite groups and sum of its element orders
Supervisors: Behrooz Khosravi and Zeinab Akhlaghi
University: Tehran Polytechnic (January 2021)

HOLDING PATENTS

(For each patent, specify authors' names, title, classification, patent number, etc.)

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SPEAKING AT NATIONAL AND INTERNATIONAL CONFERENCES AND CONVENTIONS

(Specify conference/convention title, date, etc.)

- Invited speaker in the “Finite group in Valencia” webinar (2021)
- Invited Speaker in 26th algebra conference of Iran (March 2019).
- Had a Talk in Florence university “On the dual of Huppert Conjecture on finite simple groups”(April 2018)
- Had a talk on “The influence of Conjugacy classes on the structure of groups” in the 9th Iranian group theory conference, Kashan, (2016).

- Had a talk on “Character Degree graphs” in the 8th Iranian group theory conference, Tabriz, (2015).
- Had a talk on “Influence of p-regular class sizes on Normal subgroup” in 23rd Iranian annual algebra conference, Khansar, (2014).
- Had a talk on “Influence of p-regular class sizes on Normal subgroup” in the 65th seminar of mathematics in South Africa, Pietermaritzburg (2013).
- Had a talk on “Conjugacy class sizes and the structure of groups” in the 4th international conference of group theory of Iran, Piam-e- Noor university of Esfahan(2012).
- Had a talk on “The relation of groups and commuting graphs” Spain, Castellon, The University of Jaume I (2011).
- Had a talk on “Commuting graphs of groups” Spain, Valencia, Polytechnic University of Valencia (2011).
- Participated in ten-day Berlin Summer School, Freie University Berlin (2009).

NATIONAL AND INTERNATIONAL AWARDS AND ACCOLADES FOR RESEARCH ACTIVITY

(Specify award, date, issuing organisation, etc.)

Aug 2010 – March 2011 Earning Scholarship from ministry of science of Iran for having 6 months research visit of polytechnic university of valencia and University of Jaume I, working with Antonio Beltran and Maria Jose Felipe.(This award is given to distinguished phd students)

HOLDING A EUROPEAN SPECIALISATION DIPLOMA RECOGNISED BY INTERNATIONAL BOARDS

(For those competition sectors for which it is requested)

(Specify diploma, date, etc.)

QUALIFICATIONS UNDER ART.24, PARAGRAPH 3.a AND 3.b, OF LAW No.240/2010 OF 30 DECEMBER 2010

(Specify whether it is a type A or type B contract, University, contract effective date and end date, etc.)

SCIENTIFIC PRODUCTION

SCIENTIFIC PUBLICATIONS

(For each publication, specify the following: authors' names, full title, publisher, date and place of publication, ISBN/ISSN/DOI or equivalent code)

- 1.“Quasirecognition by prime graph of the simple group ${}^2F_4(q)$ ” Z. Akhlaghi, M. Khatami and B. Khosravi, Acta Mathematica Hungarica, 122 (4) (2009) 387-397. DOI: [10.1007/s10474-009-8048-7](https://doi.org/10.1007/s10474-009-8048-7)
2. “Characterization by prime graph of the $PGL(2,p^k)$, where p and k>1 are odd”, Z. Akhlaghi, M. Khatami and B. Khosravi, International Journal of Algebra and Computation, 20 (7) (2010) 847-873. DOI: [10.1142/S021819671000587X](https://doi.org/10.1142/S021819671000587X)
- 3.“NCF-distinguishability by prime graph of $PGL(2,p)$ ”, M. Khatami, B. Khosravi, and Z. Akhlaghi, Rocky mountain Journal of Mathematics, 41 (5) (2011) 1523-1545. DOI: [10.1216/RMJ-2011-41-5-1523](https://doi.org/10.1216/RMJ-2011-41-5-1523)
- 4.“A New characterization for some linear groups” M. Khatami, B. Khosravi and Z. Akhlaghi, Monatshefte für Mathematik, 163(1) (2011) 39-50. DOI: [10.1007/s00605-009-0168-1](https://doi.org/10.1007/s00605-009-0168-1)

5. "Quasirecognition by prime graph of simple group $D_n(3)$ " Z. Akhlaghi, M. Khatami and B. Khosravi, <i>Publicationes Mathematicae</i> , 78 (2) (2011) 469-484. DOI: 10.5486/PMD.2011.4851
6. "Some New Characterization for $PGL(2,q)$ " B. Khosravi, M. Khatami and Z. Akhlaghi, <i>Cubo Journal of math</i> , 13(2) (2011) 151-161. DOI: 10.4067/S0719-06462011000200009
7. "Normal subgroups and p-regular G-class sizes" Z. Akhlaghi, A. Beltrán, M. J. Felipe, M. Khatami, <i>Journal of Algebra</i> , 336 (2011) 236-241. DOI: 10.1016/j.jalgebra.2011.04.004
8. "Structure of normal subgroups with three G-class sizes" Z. Akhlaghi, A. Beltrán, M. J. Felipe, M. Khatami, <i>Monatshefte für Mathematik</i> , 167 (1) (2012) 1-12. DOI: 10.1007/s00605-011-0290-8
9. "Finite p-solvable groups with three p-regular conjugacy class sizes" Z. Akhlaghi, A. Beltrán, M. J. Felipe, M. Khatami, <i>Proceeding of Edinburg Mathematical society</i> , 55 (2012) 371-386. DOI: 10.1017/S0013091512000466
10. "On the prime graph of $D_n(q)$ where $n \in \{2,5\}$ " Z. Akhlaghi, M. Khatami, B. Khosravi, <i>Quaestiones Mathematicae</i> , 36 (2013) 517-535. DOI: 10.2989/16073606.2013.779951
11. "The influence of p-regular class sizes on normal subgroups" Z. Akhlaghi, A. Beltrán, M. J. Felipe, <i>Journal of Group Theory</i> , 16 (4) (2013) 585-593. DOI: 10.1515/jgt-2013-0002
12. "Normal sections, class sizes and solvability of normal subgroups" Z. Akhlaghi, A. Beltrán, M. J. Felipe, <i>Journal of Algebra</i> , 399 (2014) 220-231. DOI: 10.1016/j.jalgebra.2013.09.033
13. "Finite Groups with K4-Free Prime Graphs" Z. Akhlaghi, H.P. Tong-Viet, <i>Algebras and Representation Theory</i> , 18(1) (2015) 235-256. DOI: 10.1007/s10468-014-9491-x
14. "A dual version of Huppert's conjecture on conjugacy class sizes" Z. Akhlaghi, M. Khatami, T. Le, J. Moori, H.P. Tong-Viet, <i>Journal of Group Theory</i> , 18(1) (2015) 115-131. DOI: 10.1515/jgth-2014-0039
15. "Improving Thompson's Conjecture for Suzuki Groups" Z. Akhlaghi, M. Khatami, <i>Communications in Algebra</i> , 44(9) (2016) 3927-3932. DOI: 10.1080/00927872.2015.1065871
16. "A new characterization of symmetric group by NSE" A. Babaei, Z. Akhlaghi, <i>Czechoslovak Mathematical Journal</i> , 67(2) (2017) 427-437. DOI: 10.21136/CMJ.2017.0700-15
17. "On the character degree graph of solvable groups" Z. Akhlaghi, C. Casolo, S. Dolfi, Kh. Khedri, E. Pacifici, <i>Proceedings of the American Mathematical Society</i> , 146 (2018) 1505-1513. DOI: 10.1090/proc/13879
18. "Recognition of the simple groups $PSL(2,q)$ by character degree graph and order", Z. Akhlaghi, M. Khatami, B. Khosravi, <i>International Journal of Group Theory</i> , 8 (2) (2019) 41-46. DOI: 10.22108/IJGT.2017.103226.1424

19. "Groups with K5-free Prime graph" Z. Akhlaghi, Kh. Khedri, B. Taeri, Communications in Algebra, 47 (7) (2019) 2577-2603. DOI: 10.1080/00927872.2018.1501576
20. "On the character degree graphs of finite groups" Z. Akhlaghi, C. Casolo, S. Dolfi, E. Pacifici, L. Sanus, Annali di Matematica Pura ed Applicata (1923 -), 198 (5) (2019) 1595-1614. DOI: 10.1007/s10231-019-00833-0
21. "Bounding the number of vertices of the degree graph of finite groups" Z. Akhlaghi, S. Dolfi, E. Pacifici, L. Sanus, Journal of pure and applied algebra, 224 (2) (2020) 725-731. DOI: 10.1016/j.jpaa.2019.06.006
22. "Recognition of the finite simple groups $PSL(2, p^2)$ " by some of its character degrees and order" Z. Sayanjali, Z. Akhlaghi, B. Khosravi, Bulletin of the Iranian Mathematical Society, 8 (2) (2019) 41-46. DOI: 10.1007/s41980-019-00228-0
23. "On the regularity of character degree graphs" Z. Sayanjali, Z. akhlaghi, B. Khosravi, Bulletin of Australian mathematical society, 100(3) (2019) 428-433. DOI: 10.1017/S0004972719000315
24. "Minimal partition-free groups" A. Bahri, Z. Akhlaghi, B. Khosravi, Ricerche di Matematica (2021) https://doi.org/10.1007/s11587-021-00579-z
25. "On the codegrees of finite groups" Z. Sayanjali, Z. Akhlaghi, B. Khosravi, Communications in algebra, DOI: 10.1080/00927872.2019.1684506 .
26. "A result on the sum of element orders of a finite group" A. Bahri, B. Khosravi, Z. Akhlaghi, Archive der Mathematik, 114 (2020) 3–12. DOI: 10.1007/s00013-019-01385-8
27. "On the Multiplicity of Character Degrees of Nonsolvable Groups" Z. Sayanjali, Z. Akhlaghi, B. Khosravi, Journal of Algebra and its application, DOI: 10.1142/S0219498821500766 (2020)
28. "An analog of Huppert's conjecture for character codegrees", A. Bahri, Z. Akhlaghi, B. Khosravi, Bulletin of Australian mathematical society, 104 (2) (2021) 278-286. DOI: 10.1017/S0004972721000046
29. "Minimal partition-free groups" A. Bahri, Z. Akhlaghi, B. Khosravi, Ricerche di Matematica (2021) https://doi.org/10.1007/s11587-021-00579-z .
30. "On the regular graphs related to G-conjugacy classes" A. Rahimi, Z. Akhlaghi, Bulletin of Australian mathematical society, 105 (1) (2022) 101-105. DOI: 10.1017/S0004972721000368
31. "On Huppert's Rho-Sigma conjecture" Z. Akhlaghi, S. Dolfi, E. Pacifici, Journal of Algebra, 586,(2021),537-560. DOI: 10.1016/j.jalgebra.2021.06.038
32. "On the average degree of some irreducible characters of finite groups" Z. Akhlaghi, Mathematische Nachrichten, 296(8)(2023) 3149-3152. DOI: 10.1002/mana.202100440
33. "A generalization of Taketa's theorem on M-groups", Z. Akhlaghi, Quaestiones Mathematicae, 46(2)(2022) 1497-1502. DOI: 10.2989/16073606.2022.2081632
34. "On the subgroup perfect code in Cayley graphs", Y. Khaefi, Z. Akhlaghi, B. Khosravi, Des. Codes Cryptogr. 91(2023)55-61 DOI: 10.1007/s10623-022-01098-0

35. "On the average degree of linear and even degree characters of finite groups.", Z. Akhlaghi, <i>Ricerche mat</i> (2022). https://doi.org/10.1007/s11587-022-00750-0
36. "On the Multiplicities of the Character Codegrees of Finite Groups" Z. Akhlaghi, M. Ebrahimi and M. Khatami, <i>Algebr Represent Theor</i> , 26(2023)3055-3100. DOI: 10.1007/s10468-022-10183-w
37. "Extending Camina pairs" Z. Akhlaghi, A. Beltran, <i>Journal of Algebra</i> , 622 (2023) 220-232. DOI: 10.1016/j.jalgebra.2023.02.001
38. "Variations on average character degree and solvability, N. Ahanjideh, Z. Akhlaghi, K. Aziziheris, <i>Annali di Matematica pure ed applicada</i> , (2023),. DOI: 10.1007/s10231-023-01393-0

Date

16/01/2024

Place

Tehran