



# UNIVERSITÀ DEGLI STUDI DI MILANO

TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 6152

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at Dipartimento di mathematics Universita degli stadi di milano

Scientist- in charge: Prof. Andreatta Fabrizio

[Zeinab Akhlaghi]

## CURRICULUM VITAE

### PERSONAL INFORMATION

Surname	Akhlaghi
Name	Zeinab

### PRESENT OCCUPATION

Appointment	Structure
From 2014 to now	Lecturer

### EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree			
Specialization			
PhD	Mathematics (Group theory)	Amirkabir university of tecchnology, Tehran, Iran	2007
Master	Mathematics(Algebra)	Amirkabir university of tecchnology, Tehran, Iran	2011
Degree of medical specialization			
Degree of European specialization			
Other			



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## FOREIGN LANGUAGES

Languages	level of knowledge
English	High level
Persian	Native

## AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2011	Ranked 1 <sup>st</sup> in PhD among 7 students in <b>Tehran polytechnic (Amirkabir university of technology)</b>
2004	Ranked 1 <sup>st</sup> in BSc among 45 students in <b>Tehran polytechnic(Amirkabir university of technology)</b>
2004	Graduated as <b>distinction</b> and accepted to M.Sc. of <b>Tehran polytechnic</b> (without entrance exam)
2006	Graduated as <b>distinction</b> and accepted to Ph.D of <b>Tehran polytechnic</b> (without entrance exam)
2010	Earning Scholarship from ministry of science of Iran for having 6 months visit of polytechnic university of valencia
2013	Earning Postdoctoral scholarship for 2 years from Kwazulu Natal university, South Africa

## TRAINING OR RESEARCH ACTIVITY

<b>Mar 2018</b> Visiting researcher at Florence University for 1 month working with Prof. Silvio Dolfi, Prof. Emanuele Pacifici and Prof. Carlo Casolo.
<b>Aug 2018</b> Visiting researcher at Florence University for 1month, working with the same team.
<b>Mar 2023</b> Visiting researcher at Florence University for 1month working with the same team
<b>July 2023....</b> Visiting researcher at Polytechnic university of Valencia, working with Maria Jose Felipe and Victor Sotomayor
I am a reviewer member of the Mathematical Reviewers of the American Mathematical Society from 2014 to the present. I have made a total of 17 reviews. I also have refereed for different for various journals listed in the Journal Citation Report, like Journal of Algebra, Communications in Algebra, Journal of algebra and its application, Bulletin of the Brazilian Mathematical society, Bulletin of the Iranian mathematical society, Forum Mathematicum.
I was the main organizer of the 15th International group theory conference of Iran which held on 9 & 10 February 2023. Also I was one of the organizers of the first summer school on Representation theory of groups which held in Qazvin University in Sep. 2022.

## PROJECT ACTIVITY

Year	Project
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 Groups
March 2023- March 2024	Project No.: 1402100112 Grant Giver: Institute for fundamental science of Iran (IPM) Project Title: Element orders and character codegrees

## CONGRESSES AND SEMINARS

Date	Title	Place
March 2023	Weekly Algebra Seminar	Florence university (Italy)
February 2021	Group Theory in Valencia Webinar	Valencia Universities(Spain)
March 2019	26th algebra conference of Iran	Kordestan University(Iran)
March 2018	Weekly Seminars	Florence university (Italy)
February 2017	9th Iranian group theory conference,	Kashan University(Iran)
March 2014	23rd Iranian annual algebra conference, Khansar,	University Khansar(Iran)
March 2013	65th Seminars of mathematics	University of Kwazulu-Natal(South Africa)
February 2012	4th international conference of group theory of Iran,	Piam-e- Noor university of Esfahan (Iran)
April (2011).	Weekly Algebra Seminar	University of Jaume I (Spain)
April (2011).	Weekly Algebra seminar	Polytechnic University of Valencia (Spain)

## PUBLICATIONS

Articles
“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.
“Characterization by prime graph of the $\text{PGL}(2,p^k)$ , 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.
“NCF-distinguishability by prime graph of $\text{PGL}(2,p)$ ”, M. Khatami, B. Khosravi, and Z. Akhlaghi, Rocky mountain Journal of Mathematics, 41 (5) (2011) 1523-1545.



“A New characterization for some linear groups” M. Khatami, B. Khosravi and Z. Akhlaghi, Monatshefte für Mathematik, 163(1) (2011) 39-50.

“Quasirecognition by prime graph of simple group  $D_n(3)$ ” Z. Akhlaghi, M. Khatami and B. Khosravi, Publicationes Mathematicae, 78 (2) (2011) 469-484.

“Some New Characterization for  $\text{PGL}(2,q)$ ” B. Khosravi, M. Khatami and Z. Akhlaghi, Cubo Journal of math, 13(2) (2011) 151-161.

“Normal subgroups and p-regular G-class sizes” Z. Akhlaghi , A. Beltrán , M. J. Felipe , M. Khatami, Journal of Algebra, 336 (2011) 236-241.

“Structure of normal subgroups with three G-class sizes” Z. Akhlaghi , A. Beltrán , M. J. Felipe , M. Khatami, Monatshefte für Mathematik, 167 (1) ( 2012 ) 1–12.

“Finite p-solvable groups with three p-regular conjugacy class sizes”Z. Akhlaghi, A. Beltrán, M. J. Felipe, M. Khatami, Proceeding of Edinburg Mathematical society, 55 (2012) 371-386.

“On the prime graph of  $D_n(q)$  where  $n \in \{2,5\}$ ” Z. Akhlaghi, M. Khatami, B. Khosravi, Quaestiones Mathematicae, 36 (2013) 517-535.

“The influence of p-regular class sizes on normal subgroups” Z. Akhlaghi, A. Beltrán, M. J. Felipe, Journal of Group Theory, 16 (4) (2013) 585–593.

“Normal sections, class sizes and solvability of normal subgroups” Z. Akhlaghi, A. Beltrán, M. J. Felipe, Journal of Algebra, 399 (2014) 220-231.

“Finite Groups with K4-Free Prime Graphs” Z.Akhlaghi, H.P. Tong-Viet, Algebras and Representation Theory, 18(1) (2015) 235–256.

“A dual version of Huppert's conjecture on conjugacy class sizes” Z. Akhlaghi, M. Khatami, T. Le, J. Moori, H.P. Tong-Viet, Journal of Group Theory, 18(1) (2015) 115–131.

“Improving Thompson's Conjecture for Suzuki Groups” Z. Akhlaghi, M. Khatami, Communications in Algebra, 44(9) (2016) 3927-3932 .

“A new characterization of symmetric group by NSE” A. Babaei, Z. Akhlaghi, Czechoslovak Mathematical Journal, 67(2) (2017) 427-437.

“On the character degree graph of solvable groups” Z. Akhlaghi, C. Casolo, S. Dolfi, Kh. Khedri, E. Pacifici, Proceedings of the American Mathematical Society, 146 (2018) 1505-1513.

“Recognition of the simple groups  $\text{PSL}(2,q)$  by character degree graph and order”, Z. Akhlaghi, M. Khatami, B. Khosravi, International Journal of Group Theory, 8 (2) (2019) 41-46.

“Groups with K5-free Prime graph” Z. Akhlaghi, Kh. Khedri, B. Taeri, Communications in Algebra, 47 (7) (2019) 2577-2603.

“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.

“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.

“Recognition of the finite simple groups  $\text{PSL}(2, p^2)$ ” 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.



“On the regularity of character degree graphs” Z. Sayanjali, Z. akhlaghi, B. Khosravi, Bulletin of Australian mathematical society, 100(3) (2019) 428-433.

“On the regularity of character degree graphs” Z. Sayanjali, Z. akhlaghi, B. Khosravi, Bulletin of Australian mathematical society, 100(3) (2019) 428-433.

“On the codegrees of finite groups” Z. Sayanjali, Z. Akhlaghi, B. Khosravi, Communications in algebra, DOI: [10.1080/00927872.2019.1684506](https://doi.org/10.1080/00927872.2019.1684506).

“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.

“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](https://doi.org/10.1142/S0219498821500766) (2020)

“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.

“Minimal partition-free groups” A. Bahri, Z. Akhlaghi, B. Khosravi, Ricerche di Matematica (2021) <https://doi.org/10.1007/s11587-021-00579-z>.

“On the regular graphs related to G-conjugacy classes” S. Rahimi, Z. Akhlaghi, Bulletin of Australian mathematical society, 105 (1) (2022) 101-105.

.”On Huppert’s Rho-Sigma conjecture” Z. Akhlaghi, S. Dolfi, E. Pacifici, Journal of Algebra, 586,(2021),537-560.

“On the average degree of some irreducible characters of finite groups” Z. Akhlaghi, Mathematische Nachrichten,296(8)(2023) 3149-3152.

“A generalization of Taketa’s theorem on M-groups”, Z. Akhlaghi, Quaestiones Mathematicae,46(2)(2022) 1497-1502.

. “On the subgroup perfect code in Cayley graphs”, Y. Khaefi, Z. Akhlaghi, B. Khosravi, Des. Codes Cryptogr.91(2023)55-61

“On the average degree of linear and even degree characters of finite groups.”, Z. Akhlaghi, Ricerche mat (2022). <https://doi.org/10.1007/s11587-022-00750-o>

“On the Multiplicities of the Character Codegrees of Finite Groups” Z. Akhlaghi, M. Ebrahimi and M. Khatami, Algebr Represent Theor, 26(2023)3055-3100.

“Extending Camina pairs” Z. Akhlaghi, A. Beltran, Journal of Algebra, 622 (2023) 220-232.

Variations on average character degree and sovability, N. Ahanjideh, Z. Akhlaghi, K. Aziziheris, Annali di Mathematica pure ed applicada, (2023), DOI: [10.1007/s10231-023-01393-0](https://doi.org/10.1007/s10231-023-01393-0)

## OTHER INFORMATION

From 2014 to now, I have had supervised and advised 2 PhD students and those two have received their doctoral degree. Whose name was Afsaneh Bahri and Zohreh Sayanjali

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

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