

# Mehdi KHOSRAVIAN GHADIKOLAEI

## PERSONAL DATA

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PLACE AND DATE OF BIRTH: Iran | 13 May 1985  
ADDRESS: 58 rue de Garches, 92420, Vaucresson, France  
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EMAIL: [mehdi.khosravian-ghadikolaei@dauphine.fr](mailto:mehdi.khosravian-ghadikolaei@dauphine.fr)  
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## PROFESSIONAL EXPERIENCES

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*Since March 2016* | **PhD Student in Computer Science (Computational Complexity)**  
\* Expected defence in July 2019  
\* Supervisors: Jérôme Monnot and Florian Sikora  
\* Extension of NP optimisation problems  
*LAMSADE - Université Paris Dauphine, Paris, France.*

*Mar 2012 - Feb 2016* | **Research Assistant and Instructor**  
\* Teaching some bachelor courses of Information Technology:

- Data Structure and Algorithm Design
- Languages and Automata
- Discrete Mathematics and Graph Algorithms

*Department of Computer Science and Information Technology - IASBS, Zanjan, Iran.*

## EDUCATION

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SEP 2008 - Jul 2011 | **M.Sc. of Computer Science**  
\* Supervisor: Manouchehr Zaker  
\* Modeling and algorithmic analysis of spread phenomena in social networks  
*Department of Computer Science and Information Technology - IASBS, Zanjan, Iran.*

SEP 2004 - Jul 2008 | **B.Sc. of Computer Science**  
*Department of Mathematics - Vali e Asr University of Rafsanjan, Rafsanjan, Iran.*

## RESEARCH INTEREST

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- Computational Complexity
- Algorithmic Graph Theory
- Algorithms Design
- Approximation Algorithms
- Parameterized Complexity
- Computational Geometry and Its Applications

## PUBLICATIONS

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### JOURNALS

- Weighted Upper Edge Cover: Complexity and Approximability, Journal of Graph Algorithms and Applications, K. Khoshkhah, M. K. Ghadikolaei, J. Monnot, F. Sikora. Journal of Graph Algorithms and Applications, (submitted, invited to the special issue of WALCOM 2019).
- How Bad is the Freedom to Flood-It?, R. Belmonte, M. K. Ghadikolaei, M. Kiyomi, M. Lampis, Y. Otach. Journal of Graph Algorithms and Applications, 2019.

- Complexity and Approximability of Extended Spanning Star Forest Problems in General and Complete Graphs, K. Khoshkhah, M. K. Ghadikolaei, J. Monnot, D. O. Theis. Journal of Theoretical Computer Science, 2019.
- Using Voronoi Diagrams to Solve a Hybrid Facility Location Problem with Attentive Facilities, A. Didandeh, B. S. Bigham, M. K. Ghadikolaei, F. B. Moghaddam. Journal of Information Sciences, 2013.

## INTERNATIONAL CONFERENCES AND WORKSHOPS

- Extension of some edge graph problems: standard and parameterized complexity, K. Casel, H. Fernau, M. K. Ghadikolaei, J. Monnot, F. Sikora. The 22nd International Symposium on Fundamentals of Computation Theory, FCT 2019.
- Extension and its price for the connected vertex cover problem, M. K. Ghadikolaei, N. Melissinos, J. Monnot, A. Pagourtzis. The 30th International Workshop on Combinatorial Algorithms, IWOCA 2019.
- Extension of vertex cover and independent set in some classes of graphs and generalizations, K. Casel, H. Fernau, M. K. Ghadikolaei, J. Monnot, F. Sikora. The 11th International Conference on Algorithms and Complexity, CIAC 2019.
- Weighted Upper Edge Cover: Complexity and Approximability, K. Khoshkhah, M. K. Ghadikolaei, J. Monnot, F. Sikora. The 13th International Conference and Workshops on Algorithms and Computation, WALCOM 2019.
- How Bad is the Freedom to Flood-It?, R. Belmonte, M. K. Ghadikolaei, M. Kiyomi, M. Lampis, Y. Otach. The 9th International Conference On Fun With Algorithms, FUN 2018.
- Extended Spanning Star Forest Problems, K. Khoshkhah, M. K. Ghadikolaei, J. Monnot, D. O. Theis. The 11th Annual International Conference on Combinatorial Optimization and Applications, COCOA 2017.
- One Round Voronoi Game on Grid, R. Hosseini, M. K. Ghadikolaei, M. Davoodi, B. S. Bigham. The 32th European Workshop on Computational Geometry, EuroCG 2016.
- A Reactive-Agent Based Approach for a Facility Location Problem Using Dynamic Additively Weighted Voronoi Diagram, A. Didandeh, M. K. Ghadikolaei, B. S. Bigham. The 26th European Workshop on Computational Geometry, EuroCG 2010.

## EXTERNAL REVIEWERS

- TCS Journal • ISCO 2018 • ICCG 2018

## RESEARCH VISITS

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|---------------------|-----------------------------------------------------------------------------------------|
| Nov 2017 - Dec 2017 | <b>Kumamoto University, Japan</b><br>Laboratory of Yota Otachi (research project GRAPA) |
| May 2017 - Jul 2017 | <b>Tartu University, Estonia</b><br>Laboratory of Dirk Oliver Theis (Dora Plus program) |

## ATTENDED CONFERENCES AND SCHOOLS

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| Mar 2019 | <b>International Conference and Workshops on Algorithms and Computation (WALCOM 2019)</b><br>IIT Guwahati, India. |
| Jun 2018 | <b>International conference on FUN with algorithms</b><br>Maddalena islands, Italy.                               |
| Nov 2017 | <b>Journées Graphes et Algorithmes (JGA 2017)</b><br>University of Bordeaux, Bordeaux, France.                    |
| Mar 2014 | <b>6-th Winter School on computational Geometry</b><br>Amirkabir University, Tehran, Iran.                        |

## LANGUAGES

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| ENGLISH: | Very good       |
| PERSIAN: | Mother-tongue   |
| FRENCH:  | Basic Knowledge |
| ARABIC:  | Basic Knowledge |