# Curriculum Vitae

**Dr Maryam Salami**
Date of Birth: Sep. 21, 1985
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## Education:

- **Ph. D Student,** Sept. 2013 – 2018
  "Initial Training Network, Mixed Integer Nonlinear Optimization" **European Commission Project, Marie Curie actions**, 7th Framwork.
  Istituto di Analisi dei Sistemi ed Informatica "Antonio Ruberti", IASI, **CNR**.

  **Major in:**
  Two Essays in Computational Optimization:
  - Computing the Clar Number in Fullerene Graphs and
  - Distributing the Errors in Iterative Interior Point Methods

  **Supervisor**: Dr.Giovanni Rinaldi, Dr. Claudio Gnetile.
  **Defensed at 17/09/2018**

- **Ph. D Student,** Sep. 2010 -
  Shiraz University, Mathematics Department, Shiraz, Iran
  **Supervisor:** Dr. M.B. Ahmadi
  Ph. D Comprehensive Exam: 16.90/**20**

- **Master of Science,** Sept. 2008 – Feb. 2010
  Department of Mathematics, Shiraz University, Iran
  Major in Applied Mathematics, Operations Research.
  **Thesis Title**: A New Primal-Dual Path Following Interior Point Algorithm for Semidefinite Programming.
  **Supervisor**: Dr. M. B. Ahmadi
  Total average: 18.37/**20**

- **Bachelor of Science,** Sept. 2004-Aug. 2008
  Department of Mathematics, Shiraz University, Iran Major in Applied Mathematics
  Total average: 18.21/**20**

## professional Activity:

One year activity in Istituto di Analisi dei Sistemi ed Informatica "Antonio Ruberti", CNR, Rome, Italy; under the contract " Implementatzione di Metodi del Punto Interno altraverso la soluzione inesatta di sistemi KKT; Prestazione d'Opera in Regime di Collaborazione Coordinata e Continuativa del 7/12/2016, Prot. IASI n. 0000944"

## Academic Honors:

- Accepted as an Early Stage Researcher in the "Initial Training Network, Mixed Integer Nonlinear Optimization" European Commission Project, **Marie Curie actions**, 7th Framwork, September 2013.
- Accepted with the highest score in written entrance exam for Ph.D. studies in Operation Research, Shiraz University, May 2010.
- Ranked 1st with the highest GPA (18.31 on scale 20) among graduates of Master of Science program in Applied Mathematics, Shiraz University, September 2010.
- Ranked 2nd with the highest GPA (18.27 on scale 20) among graduates of Bachelor of Science program in Applied Mathematics, Shiraz University, September 2008.
- Ranked 8th in "The 30th Iranian Mathematics Competition for University Students", May 2006.
- Ranked 1st in "The 5th Mathematics Olympia for University Students", Aug 2006.
- Ranked 2nd in "The 6th Mathematics Olympia for University Student", Aug 2007.
- Distinguished as the **top student** in the following courses:

  **B. Sc. of Math.:** Calculus 122 & 123, Elementary Programming(C) *, Advanced Programming (C++)*, Data Structure, Discrete and combinatorial Mathematic, Graph Theory and its Applications*, Operation Research I, Operation Research II, Elementary Analysis*, Principal of mathematical Analysis, Elementary Number Theory*, Probability and Statistics I, II*, Stochastic Processes I, Numerical Analysis, Linear Algebra*, Statistical quality control*.
  **M. Sc. of Operation Research:** Integer Programming Optimization**,** Network theory**,** Advanced linear programming, Optimization of Non-linear Modeling*, Heuristic and Metaheuristic approach for solving nonlinear programming Problems*, Planning and scheduling in manufacture and services, Real Analysis***,** Advanced Numerical Analysis*.
  **Ph.D of Operation Research:** Multi objective Programming Optimization*, Combinatorial Optimization*, Advanced graph theory*.

* Full Grade

## Scientific Talks

- "Cut Polytope Decomposition", Maryam Salami, Mid-term MINO meeting, Brussels, Belgium; September 2014
- "Computing Fries and Clar number of Fulleren graph", Maryam Salami, Mid-term MINO meeting, Paris, France; April 2016
- "Computing Fries and Clar number of Fulleren graph" and "Iterative Infeasible Primal-Dual Path Following Interior-Point method for Convex Quadratic Programming", Maryam Salami, Final MINO meeting, Bolgona, Italy; February 2017

## Initial Training Network, MINO ESRs Meetings

- Mid-term MINO meetings, 18th,19th and 20th Combinatorial Optimization Workshops, Aussois, France. January 2014-2017
- Mid-term MINO meeting, Brussels, Belgium; September 2014
- MINO ESR Day, Klagenfurt, Austria. 3 April 2014
- MINO ESR Day, Tilburg, The Netherlands. 9 March 2015
- MINO ESR Day, Paris, France. 4 April 2016

## Membership:

- National Institutes of Elite;
- Exceptional Talents ;
- Science community of Department of Mathematics, Shiraz University;
- Science community of Iranian Operational Research Society;
- Shiraz University team for the 5th and 6th Mathematical Olympia.

## Fields of Scientific Interest:

- Combinatorial Optimization:
  - Mixed Integer Linear/NonLinear Programming
  - Boolean 0/1 Programming
  - Semidefinite Programming
  - Interior Point Algorithms
- Graph Theory ;
- Programming:
  - Optimization Solvers: CPLEX **IBM** Optimizer, Groubi Optimizer, Etc.
- Machine Learning Algorithm:
  - Artificial Neural Network Algorithms
- Teaching:
  - Operational Researcher(( Integer) Linear/NonLinear Progrmming)
  - Combinatorics Mathematics
  - Graph Theory
  - Advanced Programming C++, Java

## Current Research Projects:

- Solving convex quadratic programming problem using inexact infeasible interior point method.
- Finding Fries and Clar number for Fullerene graphs
- Bilevel Fractional programming for efficiency of two-stage Networks

## Software Capability:

Under Linux Operating System:

- **Programming**: C, C++,
- **Software**: CPLEX IBM Optimizer, Groubi Optimizer, MATLAB (Optimization Toolbox, Curve Fitting,etc.), AIMMS(An Intelligent Mathematical Modeling Software) , LATEX, etc.

## Publications:

- **Journals**
  - M. Salami, M.B. Ahmadi, “A Mathematical Programming model for Computing the Fries Number of a Fullerene” , Applied Mathematical Modelling, Vol. 39, No. 18, September 2015, P: 5473-5479.

- M. Salami, M.B. Ahmadi, “A multi-level programming optimization approach for measuring the efficiency of two-stage networks” submitted to Computers & Industrial Engineering, Apr, 2013.
- M. Salami, M.B. Ahmadi,” Modeling the relative efficiency of two-stage network structures: Bilevel Linear Fractional Programming approach” submitted to European Journal of Operational Research, Jun, 2013.
- M. B. Ahmadi, M. Salami, “Estimating some topological indices for C4C8(S) nanotorus”, Optoelectronics and Advanced Materials – Rapid Communication, Vol. 4, No. 4, April 2010, P. 534 – 537.

**There are two (in-progress) papers based on my PhD thesis to be published.

## Conferences:

- The 19th Combinatorial Optimization workshop: 6-10 January 2014, Aussios, France;
- The 20th Combinatorial Optimization workshop: 6-10 January 2014, Aussios, France;
- 3rd Workshop on graph Theory, Algorithms and Applications: 8-16 September 2014, Erice, Italy;
- OR 2015, Optimal decision and big data, 1-4 sep 2015, Wein University, Wein, Austria.

## Workshops and Training Schools:

- The 18th, 19th, 20th and 21st Combinatorial Optimization Workshops, Aussois, France. January 2014-2017, http://www.iasi.cnr.it/aussois/web/home
- Spring School on Convex Optimization and Applications, MINO/COST Spring School Optimization, Klagenfurt, Austria. 8-11 April 2014, http://cost-td1207.zib.de/Convex_Optimization
- International School on Mathematics, “GUIDO STAMPACCHIA”, Erice, Italy. 8-16 September 2014, http://www.graphalgorithms.it/erice2014/
- MINO/COST Spring School on Mixed Integer Nonlinear Optimization and Application, Tilburg University, Tilburg, The Netherlands. 10-12 March 2015, http://www.mino-itn.unibo.it/mino-cost-springschool-tilburg

## Language Skills:

- Farsi
- English(Fluent)
- Italian(Fluent)
- German(Learning)
- Arabic(almost Fluent)

## Fields of Personal Interests:

- Learning Languages
- Photography
- Mountain Hiking, biking and running

## References:


- **Mohammad Reza Sepehri,**
  Mathematics Department, Shiraz University, Shiraz, Iran
  **Email: msepehri@shirazu.ac.ir**

- **Prof. Giovanni Rinaldi,**
  Reaserch Director,
  Istituto di Analisi dei Systemi ed Informatica, “Antonio Ruberti”(IASI), Consiglio Nazionale delle Ricerche(CNR)
  **Email:** rinaldi@iasi.cnr.it

- **Dr. Claudio Gentile,**
  Researcher,
  Istituto di Analisi dei Systemi ed Informatica, “Antonio Ruberti”(IASI), Consiglio Nazionale delle Ricerche(CNR),
  **Email:** claudio.gentile@iasi.cnr.it

- **Dr. Paola Ventura,**
  Researcher,
  Istituto di Analisi dei Systemi ed Informatica, “Antonio Ruberti”(IASI), Consiglio Nazionale delle Ricerche(CNR),
  **Email:** paolo.ventura@iasi.cnr.it

- **Dr. Mohammad Hasan Haghighi**,
  Mathematics Department, Shiraz University, Shiraz, Iran
  **Email**: shirdareh@shirazu.az.ir