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# Antonio Franques

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## Education

2015–present | **University of Illinois at Urbana-Champaign**, Urbana, IL
Ph.D. Computer Science
Advisor: Professor Josep Torrellas
Area: Computer Architecture, Parallel Computing, Systems

2011–2015 | **Polytechnic University of Valencia (UPV)**, Spain
B.S. Telecommunications Engineering, GPA: 8.9/10, Ranking: 2nd
Thesis: Numerical methods for nonlinear modeling (Grade: 10/10)
Advisors: Professors Juan Ramón Torregrosa and Alicia Cordero
Overseas studies: Norwegian University of Science and Technology (NTNU), Fall 2014

## Awards and Honors

2015 | **Award for the second-best academic record**, Class of 2015
School of Telecommunications Engineering, UPV

2015 | **Undergraduate thesis Distinction (highest grade with honors)**
School of Telecommunications Engineering, UPV

## Research Interests

Computer architecture, network on chip, extremely high frequency wireless communications, multi-core and parallel architectures, programmability of parallel systems, computational mathematics

## Research Experience

2015–present | **Graduate Research Assistant**, i-acoma group, UIUC
Area: Computer Architecture
Topic: Application of extremely high frequency wireless on-chip communications in massive multi-core architectures
Advisor: Professor Josep Torrellas

2013–2015 | **Undergraduate Research Assistant**, UPV
Area: Computational Mathematics
Topic: Design of new fast-convergence (high-order) iterative methods for obtaining the roots of a nonlinear system of equations
Advisors: Professors Juan Ramón Torregrosa and Alicia Cordero

## Publications

May 2016 | Alicia Cordero, **Antonio Franques** and J.R. Torregrosa, *"Chaos and Convergence of a family generalizing Homeier's method with damping parameters"*, Nonlinear Dynamics, doi: 10.1007/s11071-016-2807-0.

June 2015 | Alicia Cordero, **Antonio Franques** and J.R. Torregrosa, *"Multidimensional Homeier's generalized class and its application to planar 1D Bratu problem"*, SeMA Journal, doi: 10.1007/s40324-015-0037.

May 2015 | Alicia Cordero, **Antonio Franques** and J.R. Torregrosa, *"Numerical solution of turbulence problems by solving Burgers' equation"*, Algorithms 8 (2015) 224-233, doi: 10.3390/a8020224.

Sept. 2014 | Alicia Cordero, L. Feng, **Antonio Franques** and J.R. Torregrosa, *"Stability of a Fourth-Order Family of Iterative Methods for Solving Nonlinear Problems"*, Proceedings of the Ninth International Conference on Engineering Computational Technology, Naples, Italy, doi:10.4203/ccp.105.33.