

CV
Flávia Chorobura

Personal Data Born

August 4, 1995, Prudentópolis, Paraná, Brazil.
Nationality: Brazilian.

Education

PhD of Automatic Control and Systems Engineering November 2020 to present
National University of Science and Technology Politehnica Bucharest
Thesis: Adaptive first-order methods for structured optimization
Supervisor: Dr. Ion Necoara

Master of Mathematics August 2018 - July 2020
Federal University of Paraná, Paraná, Brazil
Dissertation title: Worst-case complexity analysis of derivative-free
non-monotone methods for solving nonlinear systems of equations
Supervisor: Dr. Geovani Nunes Grapiglia

Teacher Education in Mathematics 2013-2016
State University of Central-Western, Paraná, Brazil

High School 2010-2012
São José School, Paraná, Brazil

Complementary Course

Summer School 2019: Applied Differential Equations (Hour Load: 120h) 2019-2019
University of São Paulo, São Paulo, Brazil

Linear algebra using SCILAB (Hour Load: 35h) 2014-2014
State University of Central-Western, Paraná, Brazil

Online Course Precalculus (Hour Load: 36h) 2013-2013
State University of Central-Western, Paraná, Brazil

Programming Languages

- LaTeX;
- Matlab;
- Pascal;

Spoken Languages

- Portuguese (Native);
- English.

Academic Honors and Awards

Master Fellow CAPES August 2018 - July 2020
Federal University of Paraná, Paraná, Brazil

IME-USP Summer Program Fellow January 2019 – February 2019
Institute of Mathematics and Statistics
University of São Paulo, São Paulo, Brazil

Presentations

*Can random proximal coordinate descent be accelerated on
nonseparable convex composite Minimization problems?* June 2023
IEEE European Control Conference, Bucharest, Romania.

*Coordinate projected gradient descent minimization and its
application to orthogonal nonnegative matrix factorization* December 2022
IEEE Conference on Decision and Control, Cancun, Mexico.

Complexity of derivative-free non-monotone methods for solutions of nonlinear equations (poster) February 2020
XII Symposium on Numerical Analysis and Optimization, Curitiba, Paraná, Brazil.

Sensory Analysis using a system based on fuzzy rules (poster) November 2016
IV Brazilian Congress of Fuzzy Systems, Campinas, São Paulo, Brazil.

Sensory Analysis using a system based on fuzzy rules October 2016
XIX - Mathematics Studies Week, Guarapuava, Paraná, Brazil.

Participation in Events

- XII Symposium on Numerical Analysis and Optimization, Curitiba, Paraná, Brazil. 2020 (Hour Load: 6h)
- XIX - Mathematics Studies Week, Guarapuava, Paraná, Brazil. 2016 (Hour Load: 20h)
- IV SIEPE - Integration Teaching Research and Extension Week, Guarapuava, Paraná, Brazil. 2015 (Hour Load: 30h)
- XVIII - Mathematics Studies Week, Guarapuava, Paraná, Brazil. 2014 (Hour Load: 20h)
- IV Forum of Teaching Programs, IV PIBID Meeting, II Prodocência Meeting- Dialogues between Teaching Programs: Demands and Contemporaneity. 2015 (Hour Load: 24h)
- XVII - Mathematics Studies Week, Guarapuava, Paraná, Brazil. 2013 (Hour Load: 20h)

Publications

CHOROBURA, F.; NECOARA, I. *Coordinate descent methods beyond smoothness and separability*, Computational Optimization and Applications, 2024 (DOI: 10.1007/s10589-024-00556-w)

CHOROBURA, F.; NECOARA, I. *Random coordinate descent methods for nonseparable composite optimization*, SIAM Journal on Optimization, 33(3) 2160--2190, 2023.

GRAPIGLIA, G. N.; CHOROBURA, F. *Worst-case evaluation complexity of derivative-free nonmonotone line search methods for solving nonlinear systems of equations*, Computational and Applied Mathematics, 40 (259), 2021.

Papers Published in Conference Proceedings

CHOROBURA, F.; GLINEUR, F.; NECOARA, I. *Can random proximal coordinate descent be accelerated on nonseparable convex composite Minimization problems?*. In: IEEE European Control Conference, Bucharest, Romania, 2023, p.1-6.

CHOROBURA, F.; LUPU, D.; NECOARA, I. *Coordinate projected gradient descent minimization and its application to orthogonal nonnegative matrix factorization*, In: IEEE Conference on Decision and Control, Cancun, Mexico, 2022, p. 6929-6934.

Extended Abstract Published in Congress Proceedings

CHOROBURA, F.; CASTANHO, M.J.P.; TEIXEIRA, A. M. *Sensory Analysis using a system based on fuzzy rules*. In: IV Brazilian Congress of Fuzzy Systems, Campinas, Brazil, 2016. Abstract Book - Fourth Congress of Fuzzy Systems, 2016. v. 1. p. 114-116.

Bucharest, March 22,2024

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