Spyridon Pougkakiotis

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Interests Optimization, Numerical Algorithms, Numerical and Matrix Analysis, Signal Processing

EDUCATION University Of Edinburgh, Edinburgh, Scotland, UK. September 2017 – present PhD in Operational and Operational Research (Supervisor: Jacek Gondzio)

University Of Edinburgh, Edinburgh, Scotland, UK.

MSc in Operational Research with Computational Optimization

September 2016 -August 2017

(82.4/100, Distinction)

University Of Athens, Athens, Greece. September 2012 - July 2016 4-Year BSc in Informatics And Telecommunications (9.09/10, Top 1%)

EXPERIENCE

Research Assistant

University of Edinburgh, School of Mathematics September 2020 – June 2021 Reserach for a Google-funded project with name "Fast (1+x)-order methods for linear programming"

Teaching

University Of Edinburgh, School of Mathematics September 2017 – August 2020 Tutoring (PG) "Mathematics Revision Course"

Tutoring

University Of Edinburgh, School of Mathematics September 2018 – August 2021 Tutoring (PG) "Large-Scale Optimization for Data Science"

University Of Edinburgh, School of Mathematics September 2018 – August 2020 Tutoring (UG-PG) "Fundamentals of Optimization"

University Of Edinburgh, School of Engineering

Tutoring (UG-PG) "Engineering Mathematics"

September 2018 – August 2019

University Of Edinburgh, School of Mathematics

Tutoring (PG) "Optimization Methods in Finance"

September 2017 – August 2020

University Of Edinburgh, School of Mathematics

Tutoring (UG-PG) "Fundamentals of Operational Research"

September 2017 – August 2020

The University Of Edinburgh

Referee for Scientific Journals

SIAM Journal on Matrix Analysis and Applications	September 2021 – present
Numerical Algorithms	September 2019 – present
SIAM Journal on Optimization	April 2019 – present
Optimization Methods and Software	May 2018 – present
Computational Optimization and Applications	February 2018 – present
Mathematical Programming	December 2017 – present
• Principal's Career Development Scholarship - PhD funding Sep. 2017-Jan 2021	The University of Edinburgh
• A. G. Leventis Scholarship - Educational Grant Sep. 2017-Dec. 2020	A. G. Leventis Foundation

Awards and Fellowships

TECHNICAL SKILLS Programming and Scripting Languages: C, Julia, VHDL, HTML, PHP, Shell Scripting Operating Systems: Linux, Windows

Tools: MATLAB, LaTeX, Xpress Optimization, Xilinx ISE

• Highly Skilled Workforce Scholarship - Full MSc Funding

PUBLICATIONS

Journal Papers

June 2016

- L. Bergamaschi, J. Gondzio, A. Martínez, J. W. Pearson, S. Pougkakiotis, "A New Preconditioning Approach for an Interior Point-Proximal Method of Multipliers for Linear and Convex Quadratic Programming", Numerical Linear Algebra with Applications, e2361, 2021 **DOI:** https://doi.org/10.1002/nla.2361
- S. Pougkakiotis, J. Gondzio, "An Interior Point-Proximal Method of Multipliers for Convex Quadratic Programming", Computational Optimization and Applications, 78(2), 307–351, 2021 **DOI:** https://doi.org/10.1007/s10589-020-00240-9
- S. Pougkakiotis, J. W. Pearson, S. Leveque, J. Gondzio, "Fast Solution Methods for Convex Quadratic Optimization of Fractional Differential Equations", SIAM Journal on Matrix Analysis and Applications, 41(3), 1443-1476, 2020 **DOI:** https://doi.org/10.1137/19M128288X
- S. Pougkakiotis, J. Gondzio, "Dynamic Non-Diagonal Regularization in Interior Point Methods for Linear and Convex Quadratic Programming", Journal of Optimization Theory and Applications 181(3), 905-945, 2019

DOI: https://doi.org/10.1007/s10957-019-01491-1

Conference Papers

• P. Bouboulis, S. Pougkakiotis, S. Theodoridis, "Efficient KLMS and KRLS Algorithms: A Random Fourier Feature Perspective", Statistical Signal Processing Workshop (SSP), 2016 IEEE

Preprints

- V. De Simone, D. di Serafino, J. Gondzio, S. Pougkakiotis, M. Viola, "Sparse Approximations with Interior Point Methods", arXiv preprint arXiv:2102.13608, 2021
- S. Pougkakiotis, J. Gondzio, "An Interior Point-Proximal Method of Multipliers for Positive Semi-Definite Programming", arXiv preprint arXiv:2010.14285, 2020

Workshops and Conferences

Invited Speaker

• "USNA Optimization and Operational Research Conference" 2–4 June, 2021

USNA

The

"Communications in Numerical Linear Algebra"
 26 April, 2021

Independent

• "3rd IMA and OR Society Conference on Mathematics of Operational Research"
Operational Research Society
20–23 April, 2021

• "Workshop on Fast Solvers for Fractional Diffusion Problems" 2 April, 2020

Univesity of Strathclyde

• "Numerical Linear Algebra for PDEs and Large Scale Optimization" 17–18 February, 2020

University of Padova

 "Advances in Linear Algebra and Huge-Scale Optimization" 1–2 July, 2019 University of Edinburgh

"Strathclyde-Edinburgh Seminar"
 31 January, 2019

University of Strathclyde

Contributing Speaker

"18th Workshop on Advances in Continuous Optimization"
 7–9 July, 2021

ENAC

 \bullet "6th International Conference on Continuous Optimization" 3–8 August, 2019

Technical University of Berlin

 "17th Workshop on Advances in Continuous Optimization" 28–29 June, 2019 University of Strathclyde

 "23rd International Symposium on Mathematical Programming" 1–6 July, 2018 University of Bordeaux

• "6th IMA Conference on Numerical Linear Algebra and Optimization" Birmingham

University of

27-29 June, 2018

Attendee

• "LMS-EPSRC Durham Symposium on Model Order Reduction" 7-17 August, 2017

University of Durham

References

Available upon request.