Lorenzo Stella

Born December 12, 1985 in Florence, Italy
Nationality Italian, American
Email lorenzostella@gmail.com
Web lostella.github.io
GitHub github.com/lostella

Professional Experience

Feb 2013 – now — PhD student at IMT School for Advanced Studies, Lucca (Italy) `www.imtlucca.it` and KU Leuven, Leuven (Belgium). `www.esat.kuleuven.be/stadius`

Nonsmooth optimization algorithms, applications to optimal control, distributed optimization, large-scale machine learning, image processing. Teaching assistant, exercises and laboratory sessions for the "Optimization" class, taught by Panos Patrinos, at KU Leuven.

2011 – 2012 — Research Analyst at COSBI, Trento (Italy). `www.cosbi.eu`

Analysis and simulation of stochastic models in systems biology (PK/PD, metabolic networks). Inference and analysis of gene regulatory networks. Development of tools for stochastic simulation and network analysis in C#, Python and Matlab languages.

Education

2008 – 2011 — M.S. *cum laude* in Computer Science, University of Florence, Florence (Italy).

Thesis supervised by Prof. Luigi Brugnano, *Efficient methods for the numerical solution of Hamiltonian problems*. Analysis of the effectiveness of numerical methods for ODEs with respect to the conservation of energy in the case of Hamiltonian systems. Efficient implementation of such techniques using a framework developed in C.

2004 – 2008 — B.S. in Computer Science, University of Florence, Florence (Italy).

Thesis supervised by Prof. Luigi Brugnano, *Numerical methods in Linear Algebra with applications to Google's Pagerank*. Study of the *random surfer* model and possible approaches to the computation of the stationary point of the associated Markov chain. Experimental results obtained with Matlab simulations.

Software projects

GitHub: `github.com/lostella`

Proximal Operators.jl — Julia package to compute the proximal operator of several functions commonly used in nonsmooth optimization problems. Useful as building block to implement large scale optimization algorithms such as ADMM.

Web page: `github.com/kul-forbes/ProximalOperators.jl`

ForBES — Matlab solver for nonsmooth optimization, contains a library of mathematical functions to formulate problems arising in control, machine learning, image and signal processing.

Web page: `kul-forbes.github.io/ForBES`

Programming skills

Proficient — C, MATLAB, Java, Julia, Python, Git

Familiar — C++, C#, Haskell, SQL

Languages

English — Native

Italian — Native

German — Elementary