Lorenzo Stella

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Web lostella.github.io
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Professional Experience

Feb 2013 – now Ph.D. student at IMT Lucca (Italy) and KU Leuven (Belgium).

Nonsmooth optimization algorithms, applications to optimal control, distributed optimization, large-scale machine learning, image processing.

2011 – 2012 Research Analyst at COSBI, Trento (Italy).

Analysis and simulation of stochastic models in systems biology. Development of tools for stochastic simulation and network analysis in C#, Python and Matlab languages.

Education

2008 – 2011 M.Sc. in Computer Science, University of Florence. Final grade: 110/110 cum laude.

Analysis of numerical methods for ODEs with respect to the conservation of energy in Hamiltonian systems. Implementation in C.

2004 – 2008 B.Sc. in Computer Science, University of Florence. Final grade: 110/110.

Study of the *random surfer* model of Google's PageRank and algorithms for computing its stationary point. Experimental results obtained with Matlab.

Software projects

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`

libForBES C++ framework for modeling and solving large-scale nonsmooth optimization problems, allows to interface many high-level languages (including R, Python, Julia) to a unique solver capable of addressing nonsmooth problems from several application fields.

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

libLBFGS C library providing the structures and routines to implement the limited-memory BFGS algorithm (L-BFGS) for large-scale smooth unconstrained optimization. Contains a Mex interface to Matlab.

Web page: `github.com/lostella/libLBFGS`

Programming skills

Proficient C, MATLAB, Python, Julia, Java, C++

Familiar C#, Haskell

Languages

English Native

Italian Native