

Lorenzo Stella

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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 <i>random surfer</i> model of Google's PageRank and algorithms for computing its stationary point. Experimental results obtained with MATLAB.

Software projects

ProximalOperators.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
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