

Yunlong Jiao

Chinese nationality
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Education

PhD candidate in Bioinformatics, [Center for Computational Biology \(CBIO\)](#), Doctoral School of Engineering Sciences, [MINES ParisTech](#), Paris, France, advised by Prof. [Jean-Philippe Vert](#), *expected September 2017*

M.S. with highest mention in Mathematics for Life Sciences, [Department of Mathematics](#), [Université Paris-Sud](#), Orsay, France, supervised by Prof. [Christophe Giraud](#), obtained July 2013

B.S. with Honors in Mathematics and Applied Mathematics, [Department of Special Class for the Gifted Young](#), [University of Science and Technology of China \(USTC\)](#), Hefei, China, obtained July 2012

Professional Experience

Mar 2016 – Jun 2016	Research internship at Department of Computational Genomics , Centro de investigación Príncipe Felipe (CIPF) , Valencia, Spain, advised by Prof. Joaquin Dopazo
Apr 2015 – Jun 2015	Internship as data analyst at Department of System Integration and Product Care, Roche Diagnostics GmbH , Penzberg, Germany, working with Dr. Stefan Kobel
Apr 2013 – Jul 2013	Research internship on “Post-hoc Analysis on Competition-based Breast Cancer Prognosis Modeling” at Center for Computational Biology , MINES ParisTech/Institut Curie/INSERM, U900 , Paris, France, advised by Prof. Jean-Philippe Vert
Dec 2011 – Jun 2012	Undergraduate Scientific Research Practice on “Credit Rating Migration: Models and Analysis” at Academy of Mathematics and Systems Science (AMSS) , Chinese Academy of Sciences , Beijing, China, advised by Prof. Min Chen

Awards & Distinctions

Sep 2013 – Sep 2016	Early Stage Researcher Fellowship in Machine Learning for Personalized Medicine (MLPM) , a Marie Curie Initial Training Network, funded by the European Union within the 7th Framework Programme
Nov 2013	2nd place in DREAM 8 NIEHS-NCATS-UNC Toxicogenetics Challenge , an international bioinformatics competition, with E. Bernard, E. Scornet, V. Stoven, T. Walter and J.-P. Vert
Sep 2012 – Aug 2013	Master scholarship from Fondation Mathématique Jacques Hadamard (FMJH) , Orsay, France
Dec 2011 – May 2012	Undergraduate Scientific Research Practice Funding from Chinese Academy of Sciences , Beijing, China (total of 1000 winners nationwide)
Aug 2011	Honorable Mention of 2nd S.-T. YAU College Student Mathematics Contest in Probability and Statistics (top 15 nationwide)
Dec 2010	Selected into “Hua Loo-Keng” Elite Program in Mathematics, a USTC-AMSS joint training program

Skills

Programming: proficient with R, C/C++, Bash, adequate with MATLAB, Python

Language: Chinese (native), English (fluent), French (conversational)

Research

Working Papers and Preprints

Y. Jiao, and J.-P. Vert. "Network-based Wavelet Smoothing for Analysis of Genomic Data." Under preparation.

Y. Jiao, M. Hidalgo, C. Çubuk, A. Amadoz, J. Carbonell-Caballero, J.-P. Vert, and J. Dopazo. "Signaling Pathway Activities Improve Prognosis for Breast Cancer." Submitted to *Bioinformatics*. Preprint *bioRxiv-132357*, April 2017.

E. Bernard*, **Y. Jiao***, E. Scornet, V. Stoven, T. Walter, and J.-P. Vert. "Kernel Multitask Regression for Toxicogenetics." Accepted to *Molecular Informatics*. Preprint *bioRxiv-171298*, August 2017.

Y. Jiao, and J.-P. Vert. "The Kendall and Mallows Kernels for Permutations." Accepted to *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*. Preprint *HAL-01279273*, February 2016.

Published Papers

Y. Jiao, A. Korba, and E. Sibony. "Controlling the Distance to a Kemeny Consensus without Computing It." *Proceedings of the 33rd International Conference on Machine Learning (ICML-16)*, pp. 2971–2980, 2016.

F. Eduati, L. Mangravite, T. Wang, H. Tang, J. Bare, R. Huang, T. Norman, M. Kellen, M. Menden, J. Yang, X. Zhan, R. Zhong, G. Xiao, M. Xia, N. Abdo, O. Kosyk; **NIEHS–NCATS–UNC DREAM Toxicogenetics Collaboration**. "Prediction of Human Population Responses to Toxic Compounds by a Collaborative Competition." *Nature Biotechnology*, 33(9):933–940, 2015.

Y. Jiao, and J.-P. Vert. "The Kendall and Mallows Kernels for Permutations." *Proceedings of The 32nd International Conference on Machine Learning (ICML-15)*, pp. 1935–1944, 2015.

Software

`kernrank`, an R package publicly available on GitHub implementing kernel functions and kernel methods for analyzing rank data, **author and maintainer**.

`kmr`, an R package publicly available on GitHub implementing kernel multitask regression, **co-author** with J.-P. Vert.

Patents and Patent Applications

Y. Jiao, J.-P. Vert, F. Heinemann, S. Dahlmanns, and S. Kobel. "Failure State Prediction for Automated Analyzers for Analyzing a Biological Sample." *Pending European Patent*. Filed by Roche Diagnostics GmbH, F. Hoffmann–La Roche AG, December 2016.