

CONTACT DETAILS	Stanford University Department of Statistics 390 Jane Stanford Way, Stanford, CA 94305, USA	Telephone: +1 (650) 656-0855 E-mail: ignat@stanford.edu Website: https://nignatiadis.github.io/ Google Scholar: user=KH3jpkoAAAAJ
RESEARCH INTERESTS	I am interested in the development of interpretable statistical methods, accompanied by robust software implementations, for the analysis of datasets generated from modern, high-throughput technologies. From a statistical perspective, this interest encompasses Empirical Bayes analysis, causal inference, multiple testing and statistics in the presence of contextual side-information.	
EDUCATION	Stanford University <ul style="list-style-type: none"> • Ph.D. in Statistics. (GPA 4.24) Thesis advisor: Stefan Wager Thesis title: Nonparametric perspectives on empirical Bayes. 	Stanford, California, USA 09/2016 – present
	Heidelberg University <ul style="list-style-type: none"> • M.Sc. Scientific Computing, Grade 1.0 Thesis advisors: Wolfgang Huber and Enno Mammen • B.Sc. Mathematics, Grade 1.0 with <i>distinction</i> Thesis advisors: Wolfgang Huber and Rainer Dahlhaus • B.Sc. Molecular Biotechnology, Grade 1.0 	Heidelberg, Germany 2015 - 2016 2011 - 2015 2010 - 2013
AWARDS AND FELLOWSHIPS	Ric Weiland Graduate Fellowship in the Humanities & Sciences This fellowship is awarded to exceptional rising fourth year doctoral candidates in the humanities, social sciences, mathematics, and statistics upon departmental or programmatic nomination. Departmental Teaching Assistant Award , Statistics Department, Stanford iGEM Grand Prize Winner & Best Foundational Advance The International Genetically Engineered Machine competition with Team Heidelberg at MIT. Deutschlandstipendium , Heidelberg University, Germany This scholarship is awarded to talented and high-achieving students at public and state recognised institutions of higher education in Germany and is supported by the German Federal Government. Bronze medal at the International Biology Olympiad , Changwon, South Korea	2020 - 2021 2018 2013 2011 - 2013 2010
JOURNAL PUBLICATIONS	<ol style="list-style-type: none"> 1. Ignatiadis, N. and Wager, S. (2021). Confidence Intervals for Nonparametric Empirical Bayes Analysis. Journal of the American Statistical Association, Theory & Methods (forthcoming). <i>Selected as a discussion paper by the editors of JASA. The discussion will take place at JSM 2022.</i> 2. Ignatiadis, N., Saha, S., Sun D. L. and Muralidharan, O. (2021). Empirical Bayes mean estimation with nonparametric errors via order statistic regression on replicated data. Journal of the American Statistical Association, Theory & Methods (forthcoming). 3. Ignatiadis, N. and Huber, W. (2021). Covariate powered cross-weighted multiple testing. Journal of the Royal Statistical Society: Series B, 83, 720-751. 4. Karacosta, L. G., Anchang, B., Ignatiadis, N., Kimmey, S.C., Benson, J.A., Shrager, J.B., Tibshirani, R., Bendall, S.C. and Plevritis, S.K. (2019). Mapping lung cancer epithelial-mesenchymal transition states and trajectories with single-cell resolution. Nature Communications, 1010, 5887. 5. Ignatiadis, N., Klaus, B., Zaugg, J. B. and Huber, W. (2016). Data-driven hypothesis weighting increases detection power in genome-scale multiple testing. Nature Methods, 13(7), 577-580. 6. Beer, R., Herbst, K., Ignatiadis, N., Kats, I., <i>et al.</i> (2014). Creating functional engineered variants of the single-module non-ribosomal peptide synthetase IndC by T domain exchange. Molecular BioSystems, 10(7), 1709-1718. 	
CONFERENCE PROCEEDINGS	<ol style="list-style-type: none"> 7. Ignatiadis, N. and Wager, S. (2019). Covariate-Powered Empirical Bayes Estimation. Advances in Neural Information Processing Systems 32 (NeurIPS 2019). 	

PREPRINTS	<p>8. Eckles, D., Ignatiadis, N. (corresponding author), Wager, S. and Wu, H. (2022). Noise-Induced Randomization in Regression Discontinuity Designs. Working paper. Submitted to Econometrica.</p> <p>9. Ignatiadis, N. and Lolas, P. (2021). σ-Ridge: group-regularized ridge regression via empirical Bayes noise level cross-validation. Working paper.</p>	
INVITED DISCUSSIONS	<p>International Seminar on Selective Inference (ISSI)</p> <p>Discussant of the talk ‘Clipper: p-value-free FDR control on high-throughput data from two conditions’ by Prof. Jingyi Jessica Li.</p>	December 2020
SOFTWARE	<p>R packages in Bioconductor:</p> <ul style="list-style-type: none"> • IHW: Independent Hypothesis Weighting for multiple testing with side-information. • IHWpaper: Companion to the IHW package facilitating reproducibility. <p>Julia packages in the official registry:</p> <ul style="list-style-type: none"> • Aurora.jl: Empirical Bayes mean estimation with nonparametric errors on replicated data. • Empirikos.jl: Nonparametric empirical Bayes confidence intervals. • RegressionDiscontinuity.jl: Basic functionality for analyzing sharp regression discontinuity designs. • SigmaRidgeRegression.jl: σ-Ridge for regression with features that can be partitioned into groups. • SmoothingSplines.jl: Nonparametric regression using smoothing splines. • Contributions to Distributions.jl, GLM.jl, Lasso.jl, MultipleTesting.jl and others. 	
INDUSTRY EXPERIENCE	<p>Google AdsMetrics, Mountain View, USA</p> <p>Data science intern with Omkar Muralidharan, Sujayam Saha and Dennis L. Sun.</p>	Summer 2019
RESEARCH APPOINTMENTS	<p>Biomedical Informatics, Stanford, California, USA</p> <p>Research assistant in the group of Prof. Nigam Shah funded by the NHLBI R01 grant ‘Applying statistical learning tools to personalize cardiovascular treatment’.</p> <p>Statistics Department, Stanford, California, USA</p> <p>Research assistant with Prof. Stefan Wager working on empirical Bayes and causal inference problems.</p> <p>European Molecular Biology Laboratory, Heidelberg, Germany</p> <p>Research assistant in the group of Dr. Wolfgang Huber.</p>	<p>2021 - Present</p> <p>2017 - 2021</p> <p>2014 - 2016</p>
TALKS AND PRESENTATIONS	<p>Confidence Intervals for Nonparametric Empirical Bayes Analysis.</p> <p>CMStatistics: Advances in empirical Bayes methodology</p> <p>Virtual presentation</p> <p>Noise-Induced Randomization in Regression Discontinuity Designs.</p> <p>Fourth Annual Berkeley-Stanford Econometrics Jamboree</p> <p>UC Berkeley, California, USA</p> <p>Noise-Induced Randomization in Regression Discontinuity Designs.</p> <p>Causal Science Conference</p> <p>Stanford University, California, USA</p> <p>Noise-Induced Randomization in Regression Discontinuity Designs.</p> <p>Joint Statistical Meetings (JSM): Causal Inference When Resources Are Limited</p> <p>Virtual presentation</p> <p>σ-Ridge: group regularized ridge regression via empirical Bayes noise level cross-validation.</p> <p>Statistics seminar at Vrije Universiteit (VU) Amsterdam campus</p> <p>Virtual presentation</p> <p>Confidence Intervals for Nonparametric Empirical Bayes Analysis.</p> <p>International Seminar on Selective Inference (ISSI)</p> <p>Virtual presentation</p> <p>Bias-Aware Confidence Intervals for Empirical Bayes Analysis.</p> <p>Joint Statistical Meetings (JSM): Causality in Statistical Data Science</p> <p>Virtual presentation</p> <p>Covariate-Powered Empirical Bayes Estimation.</p>	<p>December 2021</p> <p>November 2021</p> <p>November 2021</p> <p>August 2021</p> <p>April 2021</p> <p>April 2021</p> <p>August 2020</p> <p>January 2020</p>

