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BROWN UNIVERSITY

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Office Contact Information

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Undergraduate Studies:
B.Sc., Econometrics and Operations Research, Maastricht University, The Netherlands, 2011

Graduate Studies:
M.Sc., Econometrics and Operations Research, Maastricht University, The Netherlands, 2012

Brown University, 2012 to present
Ph.D. Candidate in Economics
Thesis Title: *Essays on Factor Models and Latent Variables in Economics*
Expected Completion Date: January 2018

References:

Professor Frank Kleibergen
Amsterdam School of Economics
University of Amsterdam
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Professor Adam McCloskey
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Professor Jesse M. Shapiro
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Academic Positions
Visiting Assistant Professor, Brown University, January-May 2018

Teaching and Research Fields:
Econometric Theory, Applied Econometrics, High-dimensional data

Affiliations
Brown University Data Science Initiative

Teaching Experience:

Spring 2018	Big Data, Brown University, Instructor
Spring 2016-2017	Big Data, Brown University, Teaching Fellow for Prof. Daniel Bjorkegren
Summer 2015-2017	Probability and Its Applications, Brown University, Instructor

Summer 2014-2016	Predicting Presidential Elections and Other Things, Brown University, Instructor
Fall 2015	Introduction to Econometrics, Brown University, Teaching Fellow for Michael Bedard
Spring 2015	Introduction to Econometrics, Brown University, Teaching Fellow for Prof. Dimitra Politi
Fall 2014	Introduction to Econometrics, Brown University, Teaching Fellow for Prof. Frank Kleibergen
Spring 2014	Econometrics I, Brown University, Teaching Fellow for Prof. Philipp Ketz
Fall 2013	Introduction to Econometrics, Brown University, Teaching Fellow for Dror Brenner

Research Experience:

Summer 2013-2014	Brown University, Research Assistant for Prof. Adam McCloskey

Honors, Scholarships, and Fellowships:

2017-2018	Brown University, Deans' Faculty Fellow
2012-2013	Brown University, Stephen R. Ehrlich Fellowship

Conferences and Presentations:

2017	NBER/NSF Time Series Conference, Northwestern University, Evanston, US
	CIREQ Econometrics Conference, Montreal, Canada
2016	(EC)^2 conference on Big Data, TSE, Toulouse, France
	Advances in Quantitative Economics, Maastricht, Netherlands

Research Papers:

"A Generalized Factor Model with Local Factors" (Job Market Paper)

I extend the theory on factor models by incorporating "local" factors into the model. Local factors affect a decreasing fraction of the observed variables. This implies a continuum of eigenvalues of the covariance matrix, as is commonly observed in applications. I derive conditions under which local factors will be estimated consistently using the common Principal Component Estimator. I further propose a novel class of estimators for the number of factors. Unlike estimators that have been proposed in the past, my estimators use information in the eigenvectors as well as in the eigenvalues. Monte Carlo evidence suggests significant finite sample gains over existing estimators. Empirically I find evidence of local factors in a large panel of US macroeconomic indicators.

"Pre-event trends in the panel event-study design" (Joint with Christian Hansen and Jesse M. Shapiro)

We consider a linear panel event-study design in which latent factors may be related both to the outcome and to the policy variable of interest. We provide sufficient conditions for identification exploiting covariates related to the policy variable only through the latent factors. With one latent factor, a single such covariate can be sufficient for identification. Our model implies a set of linear-in-parameters moment equations, and we propose a 2SLS estimator. Our approach permits causal inference when endogeneity leads to pre-event trends ("pre-trend"') in the outcome, under conditions similar to those often maintained in the linear panel event-study design. Alternative approaches, such as estimation following a test for pre-trends, perform poorly.

Research Papers in Progress:

Sparse Factor Models

Time Varying Correlation Matrices: The Role of Dormant Factors