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**BROWN UNIVERSITY**

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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
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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:**

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| 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 |

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| 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:**

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

**Honors, Scholarships, and Fellowships:**

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

**Conferences and Presentations:**

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| 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*